Aluminum statistical review for 1989

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incorporated

Aluminum statistical review for 1989

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Contents

The Aluminum Association does not warrant the accuracy or completeness of any data in this Review. All data contained herein are subject to revision.

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Introduction 2
Capsule Review 2

Shipments

Total Industry Shipments 5
Imports of Mill Products 5
Shipments of Ingot & Mill Products 6
General Line Distributor Shipments 8
Shipments of Castings 9

Markets

Shipments by Major Market 12
Product Shipments by Major Market 13
Trends in Selected Markets 18

Supply

Introduction 21
Total Supply 22
U.S. Suppliers' Inventories 24
Total Supply Adjusted for Stockpile 24
Production of Primary Aluminum 25
Primary Aluminum Capacity 26
Number of Plants in the U.S. 27
Geographic Distribution of Aluminum Plants 27
Aluminum Scrap-Consumption and Recovery 30

U.S. Foreign Trade Statistics

Introduction 32
U.S. Imports & Exports 36
U.S. Imports by Products & Country 38
U.S. Exports by Products & Country 40

World Statistics

Introduction 43
World Primary Aluminum Production 44
Aluminum Supply & Apparent Consumption-Selected Countries 46

Glossary 61

Publications 63

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Introduction to Aluminum Statistics

"Spiral", a multi-purpose art center in Tokyo, Japan won the 1987 R.S. Reynolds Memorial Award for distinguished architecture using aluminum. Architects and developers find extensive and innovative aluminum product lines to suit their needs. During 1989, aluminum shipments to the Building and Construction market totaled almost 2.9 billion pounds.

ABOUT THE REVIEW

The Aluminum Association's Statistical Review for 1989 assembles in one place the most important statistical data available on the aluminum industry. It includes information on every cycle of the aluminum production process from primary aluminum to markets for finished goods.

The Aluminum Association, Inc., representing the United States aluminum industry, is the primary source for statistics, standards and other information on aluminum and the industry.

The Review is divided into five major sections: Shipments, markets, supply, U.S. foreign trade, and world statistics. Each section is preceded by an introduction and description summary of the tables that follow. In addition each graph or table has a description and highlights. The Review shows detailed shipment figures for 23 separate product categories. A glossary of industry terms and appended as well.

Capsule Review

Millions of Pounds	1989	1988	% Change
Total Supply	16,404	16,609	-2.9
Primary Production	8,885	8,696	2.2
Primary Capacity (year-end)	9,010	8,602	4.7
Net Shipments to Major Markets			
Building & Construction	2,858	2,901 r	-1.5
Transportation	3,341	3,386 r	-1.3
Consumer Durables	1,222	1,296 r	-5.7
Electrical	1,497	1,479 r	1.2
Machinery & Equipment	976	959 r	1.8
Containers & Packaging	4,638	4,489	3.3
Other	585	593 r	-1.3
Total Domestic Shipments	15,117	15,103 r	0.1
Exports	2,336	1,734	34.7
Adjusted Net Shipments	17,453	16,837 r	3.7
Statistical Adjustment	-1,027	-413 r	-
Total Net Shipments	16,426	16,424 r	-

r - revised

1989 Highlights

15,117 million pounds of aluminum were shipped to U.S. markets in 1989, up 0.1 percent from the 1988 level of 15,103 million pounds. Aluminum exports of ingot and semifabricated products, increased 34.7 percent in 1989 to 2,336 million pounds.

Total aluminum shipments,* including exports, rose in 1989 to a level of 17,453 million pounds, an increase of 3.7 percent from 1988 shipments of 16,837 million pounds.

Total aluminum imports into the U.S. (including scrap) decreased to 3,473 million pounds in 1989, a 5.9 percent drop over 1988 levels. Imports of aluminum ingot totaled 2,041 million pounds in 1989, a 9.9 percent decrease from 1988 imports of 2,265 million pounds. Total imports of aluminum mill products in 1989 were 942 million pounds, a 2.9 percent drop from 1988 imports of 970 million pounds.

Consumer imports of mill products totaled 674 million pounds in 1989, were down 25.5 percent from 1988, reducing penetration of U.S. mill products consumption to 4.1 percent.

*"Net" shipments exclude intra-industry shipments for further fabrication. It is the most accurate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are subtracted.

The United States supply of aluminum in 1989 dropped 2.9 percent to a level of 16,404 million pounds. Domestic primary production increased 2.2 percent to 8,885 million pounds, imports of aluminum ingot and mill products were down 7.8 percent to 2,983 million pounds and domestic recovery from scrap accounted for 4,506 million pounds, a 3.7 percent decrease from 1988.

Containers and Packaging continue to be the industry's largest market in 1989 with a volume of 4,638 million pounds and accounting for 26.6 percent of the total 1989 shipments. This market increased 3.3 percent from the 1988 level of 4,489 million pounds.

The second largest market for 1989 was **Transportation**, totaling 3,341 million pounds and accounting for 19.1 percent of the total shipments, decreasing 1.3 percent over 1988. In the **Building and Construction** market, 1989 shipments of 2,858 million pounds decreased 1.5 percent from 1988 levels.

The **Electrical** market showed an increase of 1.2 percent over 1988 with 1989 shipments at 1,497 million pounds. **Consumer Durables** shipments dropped 5.7 percent to 1,222 million pounds in 1989.

Shipments to the nonelectrical **Machinery and Equipment** market increased to 976 million pounds, a rise of 1.8 percent.

Acknowledgements

The data for this **REVIEW** were developed by the Statistical and Market Research Committee of the Aluminum Association, Inc. along with the cooperation of the following organizations: Can Manufacturers Institute; Bureau of the Census, U.S. Department of Commerce; and the Bureau of Mines, U.S. Department of the Interior

The **Aluminum Statistical Review** for 1989 was compiled and edited by Nicholas A. Adams, Manager, Product and Market Statistics.

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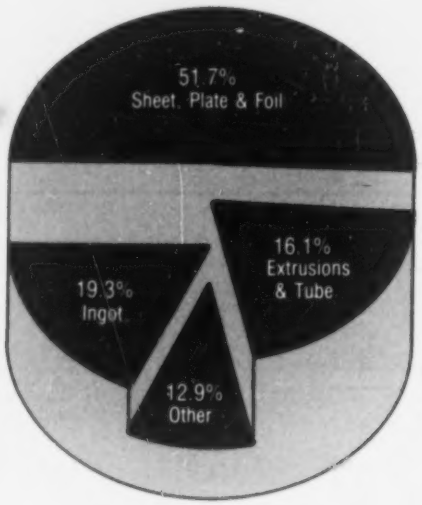
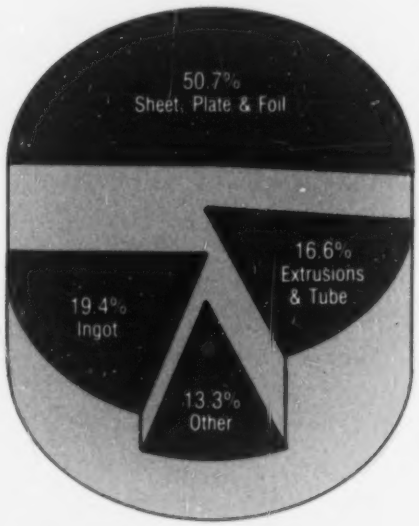
This edition covers in most tables the years 1979-1989. Data on the years 1960-1980 are available in a companion publication: " **Aluminum Statistical Review-Historical Supplement**." Contact the Aluminum Association for further information.

U.S. Aluminum Industry Shipments

Percentage Distribution by Major Products: 1989



Percentage Distribution by Major Products: 1988



¹Other

Conductor	*4.2 (4.0)*
Rod, Bar, Wire	*1.4 (1.8)*
Forgings & Impacts	*1.0 (1.0)*
Powder	*0.6 (0.5)*

NOTE: 1988 percentages are shown in parentheses

U.S. INDUSTRY SHIPMENTS LEVEL WITH PREVIOUS YEAR

Total net shipments in 1989, including imports, amounted to 16,426 million pounds, up slightly from the 16,423 million pounds shipped in 1988.

The adjacent pie chart shows that the largest product category of sheet, plate and foil represented 51.7 percent of total shipments in 1989 (50.7% in 1988). Ingot for castings, destructive uses and exports accounted for 19.3 percent (19.4% in 1988) and extruded products and tube shipments were 16.1 percent (16.6% in 1988) of total shipments.

Excluding net imports, sheet and plate and foil volume of 8,499 million pounds were up 2.0 percent from 1988. Extruded products and tube shipments totaled 2,645 million pounds, down 2.9 percent from 1988.

Total shipments to U.S. consumers at 14,091 million pounds were down 4.1 percent from the 1988 level of 14,690 million pounds. Exports increased 34.7 percent to a 1989 level of 2,335 million pounds.

DESCRIPTION:

Total aluminum industry shipments presented on the next page are net shipments to U.S. consumers and for export. To avoid duplication, the figures do not include any intra-industry shipments for further fabrication into mill products. Imported ingot and mill products shipped to U.S. consumers are included.

Net shipments of ingot include domestic and import shipments and represent primary and secondary ingot shipments for export, castings and destructive uses. Net shipments of mill products are shown separate for domestic and import. Mill product imports to aluminum producers are not included in total industry shipments. These imports are further processed by the producer into another mill product which is included in the total.

Imports to consumers are included in total industry shipments. These consumers fabricate the aluminum into a finished product. Imported mill products are net of receipts by producers of mill products. Imported mill products data include reimports of metal exported for processing and returned for further processing.

The pie charts illustrate the distribution of net shipments of aluminum ingot and mill product groups during 1989 and 1988. They include net shipments of ingot and domestic mill products but exclude imported mill products, because import data are not available in the same detail as domestic shipments of mill products. The distribution is based on data shown on pages 6 and 7. The imported mill products are shown on page 5.

For information on years prior to 1979 see the Aluminum Statistical Review-Historical Supplement.

Total Industry Shipments

Millions of Pounds

Net Shipments	1989 % Total	1989 Amount	1988 % Total	1988 Amount	1989-1988 % Change	1979-1989 %Annual Growth [3]
Total	100.0	16,426.0	100.0	16,423.2r	-	1.9
Ingot	19.4	3,179.6	19.4	3,180.7	-	0.8
Mill Products						
U.S. Producers	74.9	12,308.4	74.7	12,272.6	0.3	1.9
Consumer Imports	4.1	674.3	5.5	904.6	-25.5	11.9
U.S. Exports	14.2	2,335.4	10.6	1,733.5	34.7	2.3
U.S. Consumers [1]	85.8	14,090.6	89.4	14,689.7r	-4.1	2.0

Total Industry Shipments 1979-1989

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Net Shipments											
Total	16,426.0	16,423.2 r	16,380.0	15,339.9	15,272.3	15,521.3	14,153.9	12,505.1	13,814.4	14,351.0	14,867.2
Ingot	3,179.6	3,180.7	3,141.0	2,969.8	3,364.7	3,579.5	3,044.8	3,090.3	3,236.4	3,723.8	3,287.0
Mill Products											
U.S. Producers	12,308.4	12,272.6	12,233.9	11,416.4	11,091.5	11,075.9	10,577.5	9,026.8	10,337.8	10,484.9	11,230.3
Consumer Imports	674.3	904.6	901.1	953.7	816.1	865.9	531.6	388.0	240.2	142.3	349.9
U.S. Exports	2,335.4	1,733.5	1,255.6	910.8	1,204.2	1,076.5	1,240.9	1,294.7	1,370.0	2,193.3	1,022.9
U.S. Consumers [1]	14,090.6	14,689.7 r	15,124.4	14,429.1	14,068.1	14,444.8	12,913.0	11,210.4	12,444.4	12,157.7	13,844.3

Mill Products Imports 1979-1989

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Total Imports [1]											
Total	938.0	969.9	1,005.1	1,088.9	1,020.7	1,089.7	618.3	455.6	303.9	168.1	426.3
Sheet & Plate	760.9	732.7	765.3	836.0	770.1	884.5	536.1	414.8	247.1	126.1	357.3
Rod & Bar	46.9	98.4	117.3	128.9	128.7	82.3	27.4	10.1	34.2	16.3	38.0
Other	130.2	138.8	122.5	124.0	121.9	122.9	54.8	30.7	22.6	25.7	31.0
Imports to Consumers [1]											
Total	674.3	904.6	901.1	953.7	816.1	865.9	531.6	388.0	240.2	142.3	349.9
Sheet & Plate	528.2	727.3	732.6	798.4	680.3	749.6	477.3	357.6	205.6	115.7	317.0
Rod & Bar	19.3	44.8	54.8	51.3	24.1	7.8	9.3	1.2	12.3	9.1	2.2
Other	126.8	132.5	113.7	104.0	111.7	117.5	45.0	29.2	22.3	17.5	30.7
Imports to Producers [2]											
Total	263.7	65.3	104.0	135.2	204.6	223.8	86.7	67.6	63.7	25.8	76.4
Sheet & Plate	232.7	5.4	32.7	37.6	89.8	137.9	58.8	57.2	41.5	10.4	40.3
Rod & Bar	27.6	53.6	62.5	77.6	104.6	80.5	18.1	8.9	21.9	7.2	35.8
Other	3.4	6.3	8.8	20.0	10.2	5.4	9.8	1.5	0.3	8.2	0.3

Detail may not add due to rounding

(1) Includes reimports of metal exported for processing and returned for further processing.
(2) Product detail estimated by the Aluminum Association.
(3) Annual growth rate calculated by straight line least squares method.

Source: U.S. Department of Commerce, Bureau of the Census

Shipments

Net Shipments of Ingot and Mill Products 1955-1989
Excludes Mill Product Imports to Consumers

Millions of Pounds

Year	Total aluminum	Total ingot	Primary ingot	Secondary ingot [3][4]	Extrusion ingot [5]	Total mill products	Sheet and Plate				Foil	Forgings [2]	Impacts [2]
							nonheat treatable		heat treatable				
1955	3,997.2	1,205.4	509.9	695.5	-	2,791.8	1,049.6		295.0		198.2	70.3	
1956	4,109.3	1,223.5	520.1	703.4	-	2,885.8	1,050.6		327.0		190.5	75.7	
1957	3,839.2	1,161.6	458.2	703.4	-	2,677.6	943.8		248.7		204.0	64.3	
1958	3,571.1	974.0	368.6	605.4	-	2,597.1	944.4		209.1		199.6	50.8	
1959	4,961.1	1,575.0	751.4	803.4	20.2	3,386.1	1,284.6		231.3		252.6	53.8	
1960	4,657.7	1,608.6	852.3	665.2	91.1	3,049.1	1,203.4		184.8		249.0	50.1	
1961	4,881.7	1,536.6	690.7	701.9	144.0	3,345.1	1,256.3		237.0		270.6	56.4	
							Sheet		Plate				
							NHTS	HTS	NHTS	HTS			
1962	5,669.9	1,858.6	768.9	848.7	241.0	3,811.3	1,361.8	157.3	108.9	82.9	297.4	79.4	
1963	6,289.8	2,032.6	859.2	885.9	287.5	4,257.2	1,626.5	165.2	126.5	77.1	322.3	84.0	
1964	7,063.5	2,228.6	946.5	995.1	287.0	4,834.9	1,903.0	167.8	124.2	79.0	356.7	88.4	
1965	8,016.7	2,337.3	1,069.3	1,126.9	141.1	5,679.4		2,179.8	223.0	109.0	97.0	395.7	
1966	8,797.7	2,340.2	987.2	1,190.4	162.6	6,457.5	2,382.4	281.5	125.7	147.2	432.2	139.2	
1967	8,837.0	2,486.4	1,063.6	1,189.1	233.7	6,350.6	2,385.6	227.4	119.5	135.6	449.4	165.2	
												Forgings	Impacts
1968	9,861.8	2,694.8	1,154.2	1,284.3	256.3	7,167.0	2,910.8	250.2	103.5	140.0	508.7	105.7	62.1
1969	10,717.5	3,051.2	1,569.4	1,264.9	216.9	7,666.3	3,299.3	200.8	105.8	120.9	559.9	97.3	59.3
1970	9,952.5	2,594.5	1,307.0	1,126.0	161.5	7,358.0	3,376.4	126.7	94.1	91.4	558.7	71.4	49.0
1971	10,267.3	2,428.5	1,004.5	1,187.7	236.3	7,838.8	3,691.1	121.6	75.6	87.8	585.6	69.5	28.7
1972	11,880.0	2,633.8	1,000.7	1,467.9	165.2	9,246.2	4,431.4	160.6	78.8	97.1	673.2	95.3	27.5
1973	14,568.3	3,668.4	1,615.7	1,757.8	294.9	10,899.9	5,308.7	203.3	109.7	119.6	774.4	114.8	27.6
1974	13,639.4	3,178.3	1,503.5	1,457.4	217.4	10,461.1	5,087.9	216.5	157.2	164.6	748.2	112.8	25.5
1975	9,804.2	2,377.6	1,275.0	1,019.1	83.5	7,426.6	3,676.8	121.0	143.2	111.2	611.8	82.8	14.4
1976	12,245.6	2,540.0	1,108.5	1,227.6	203.9	9,705.6	5,167.0	191.9	108.4	106.5	772.3	83.1	17.1
1977	12,831.3	2,388.3	768.5	1,443.6	176.2	10,443.0	5,505.5	300.4	104.2	130.3	805.6	105.7	15.6
1978	14,018.3	2,672.3	923.3	1,658.7	90.3	11,346.0	5,785.4	350.0	116.1	157.1	876.6	115.7	20.7
1979	14,517.3	3,287.0	1,281.2	1,830.7	175.1	11,230.3	5,632.4	365.4	114.9	183.5	887.0	127.4	31.4
1980	14,208.7	3,723.9	1,958.3	1,582.1	183.5	10,484.9	5,301.8	247.3	92.2	220.9	830.4	107.2	26.0
1981	13,574.2	3,236.4	1,485.3	1,704.5	46.6	10,337.8	5,504.0	200.9	106.1	167.1	850.4	109.2	29.8
1982	12,117.2	3,090.4	1,508.0	1,517.3	65.1	9,026.8	4,976.9	150.1	70.9	131.2	731.2	78.9	25.3
1983	13,622.4	3,044.9	1,438.5	1,499.2	107.2	10,577.5	5,952.4	181.0	57.5	145.4	826.4	88.6	27.6
1984	14,655.4	3,579.5	1,782.6	1,768.2	28.7	11,075.9	5,866.5	221.2	81.5	173.4	852.7	114.9	29.3
1985	14,456.2	3,364.7	3,148.9		215.9	11,091.5	5,964.3	220.1	74.4	183.4	812.8	108.3	40.4
1986	14,386.2	2,969.8	2,667.9		301.9	11,416.4	6,135.5	246.1	72.7	175.1	860.5	97.3	47.2
1987	15,374.9	3,141.0	3,221.2		-80.2	12,233.9	6,862.5	247.7	74.1	194.3	866.3	108.3	48.0
1988	15,453.3	3,180.7	3,256.8		-76.2	12,272.6	6,789.4	296.0	89.5	208.6	949.5	118.6	47.3
1989p	15,488.0	3,179.6	3,337.6		-158.0	12,308.4	7,046.2	256.2	75.0	234.2	887.1	118.6	40.3

Detail may not add due to rounding

(1) A small amount of rolled structural shapes is included with rod & bar in 1954-1961 and with extruded shapes in subsequent years.
(2) Through 1954 forgings and impacts were not reported. They were included in appropriate forging stock product categories, mainly rolled rod & bar.
(3) 1954-1961 Secondary ingot included extrusion ingot.
(4) Secondary ingot includes shipments by integrated companies, secondary smelters and imports.
(5) Extrusion ingot includes primary and secondary metal shipments by integrated companies, non-integrated companies, secondary smelters and imports. Includes exports and overstated domestic shipments due to insufficient reporting of receipts.

Rod & Bar	Extruded Shapes: Soft alloys	Extruded Shapes: Hard alloys	Drawn tube	Welded tube	Wire, bare: Non Conductor	Wire, bare: Conductor	ACSR & bare cable	Insul. or cov. wire & cable	Powder & Paste
109.9	636.6	45.8	67.2	25.5	57.7	4.0	156.9	39.5	35.7
117.8	641.0	63.5	69.2	27.6	54.4	5.5	187.4	56.1	28.4
					Wire, bare				
116.9	645.6	61.2	56.2	26.7	50.4		181.5	50.3	28.2
75.6	693.5	49.8	59.8	18.7	44.2		174.8	51.0	25.6
124.6	931.3	47.9	72.9	30.0	64.6		196.7	60.8	34.9
92.9	812.1	38.9	60.3	25.9	55.4		183.1	60.4	32.8
100.8	884.1	50.5	64.0	35.4	52.6		232.8	68.6	35.9

	Extruded rod & bar: Soft	Extruded rod & bar: Hard	Extruded shapes (1): Soft	Extruded shapes (1): Hard	Extruded pipe & tube: Soft	Extruded pipe & tube: Hard	Drawn tube	Welded tube	Wire, bare	ACSR & bare cable	Insul. or cov. wire & cable	Powder & Paste
136.4	54.8	12.6	782.4	44.8	139.5	5.2	78.4	40.7	55.0	253.2	76.9	43.7
121.0	61.1	10.2	870.7	54.2	150.3	6.1	65.5	52.1	57.6	272.3	89.2	44.8
							Drawn tube					
							Soft / Hard					
146.8	70.5	12.6	1,016.4	41.0	158.2	4.3	60.3 / 6.6	77.4	63.1	309.2	103.2	46.3
159.7	68.2	14.8	1,224.3	57.5	174.9	2.7	78.8 / 3.7	93.7	82.6	429.3	129.4	58.8
151.9	67.2	21.5	1,335.3	97.7	190.6	6.9	92.2 / 7.5	91.2	103.2	507.4	165.3	111.4
143.0	43.6	18.4	1,222.7	84.5	157.4	8.5	81.7 / 7.5	87.8	97.7	506.2	174.7	234.0
130.0	37.3	21.1	1,363.0	70.0	170.2	11.8	84.6 / 8.0	106.9	100.4	492.2	214.0	276.4
144.3	42.2	21.1	1,460.2	72.3	196.1		81.8 / 7.2	101.6	94.7	475.1	250.5	276.0
110.0	39.7	16.8	1,369.2	43.4	176.9		80.7 / 3.5	92.5	93.5	499.5	260.2	204.5
102.2	37.7	16.4	1,550.6	42.1	186.1		81.6 / 2.7	96.3	96.8	481.8	317.1	167.5
181.5	40.5	16.6	1,838.4	44.6	193.8		89.1 / 3.7	116.6	106.6	453.6	371.0	226.4
289.4	48.3	18.9	2,038.6	72.2	225.6		105.7 / 4.6	121.7	124.1	490.2	445.2	257.4
268.4	48.8	14.9	1,807.3	66.4	219.4		110.4	116.8	131.0	541.4	446.3	177.2
185.8	55.7	12.1	1,264.3	47.7	135.9		65.7	61.6	66.3	425.1	246.3	98.9
279.9	69.9		1,661.8	28.9	188.8		98.0	94.2	79.9 (6)	321.4	304.1	132.4
145.5	82.5		1,845.5	65.4	183.8		104.3	114.5	85.3 (6)	351.0	376.7	121.1 (7)
266.5	113.7		2,021.9	93.2	176.8		106.7	110.4	89.3	390.3	419.6	135.9
300.0	100.9		1,990.1	104.2	151.9		95.9	83.5	91.3	417.4	427.5	125.6
377.6	113.0		1,791.2	107.3	140.7		80.7	96.8	72.2	399.8	363.2	116.6
272.0	102.9		1,732.9	69.9	127.3		74.6	114.2	68.3	378.7	321.6	107.7
190.4	74.5	19.4	1,568.1	48.2	89.5	11.4	60.9	47.9	50.8	345.2	276.0	80.0
187.1	89.2	25.4	1,859.5	55.2	122.2	14.3	65.2	56.4	54.9	357.4	333.3	78.7
201.2	91.8	31.0	2,138.8	88.0	154.1	22.6	56.4	59.9	54.3	346.0	393.8	98.7

Drawing Stock	Rod & bar rolled or extruded: Soft	Rod & bar rolled or extruded: Hard			Pipe & tube extruded or drawn: Soft	Pipe & tube extruded or drawn: Hard					
27.2	81.3	110.0	2,285.7	67.5	238.6	10.6	(8)	86.2	277.0	396.2	107.3
8.9	99.2	115.7	2,385.7	72.0	269.3		(8)	104.8	233.8	396.1	96.2
24.6	109.2	113.5	2,411.9	70.2	272.8		(8)	110.7	219.9	407.7	92.1
(33.0)	104.6	117.9	2,340.3	82.8	283.4	17.7	(8)	111.5	276.4	381.7	90.3
(76.8)	86.7	108.0	2,283.5	74.9	260.6	25.7	(8)	111.8	297.0	387.2	92.0

(6) Bare wire estimated by the Aluminum Association from partial year reporting.
(7) Powder, nec included for only nine months of 1976 and excluded entirely for 1977.
(8) Welded tube included with aluminum sheet.

SOURCE: U.S. Department of Commerce, Bureau of the Census.

For information prior to 1955, see the Aluminum Statistical Review - Historical Supplement.

General Line Distributor Shipments

DISTRIBUTOR SHARE 34.3 PERCENT

During 1989 distributors captured 34.3 percent of their available market. Total U.S. shipments of mill products, excluding direct mill uses, was 4,618 million pounds, down 4.2 percent from 1988. Distributor shipments at an estimated 1,586 million pounds were down 3.5 percent from a year ago.

DESCRIPTION:

The table shows general line distributor shipments for the years 1979-1989. Also shown are estimates of the total market in which general line distributors are participants. This is labeled total U.S. Shipments, excluding Direct Mill Uses.

For information on years prior to 1979, see the Aluminum Statistical Review-Historical Supplement.

Direct mill uses are excluded because these end product manufacturers do not buy from distributors. In some cases producers make final products. These uses include residential siding, extruded shapes for all building products, furniture tube, conduit, irrigation pipe, can stock and exports. Total U.S. shipments excluding direct mill uses thus differ from total aluminum industry shipments of mill products by the amount of direct mill uses and products not generally handled by general line distributors (foil, conductor, forgings and powder).

General Line Distributors Shipments
1979-1989

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Distributor Shipments											
Total	1,586	1,643	1,597	1,465	1,389	1,411	1,285	948	1,200	1,274	1,359
Sheet	1,014	1,083	1,068	959	907	941	864	601	783	751	820
Plate	186	178	160	155	152	146	119	104	120	155	152
Rod, Bar & Wire	163	154	157	152	138	134	131	106	140	161	176
Extruded Shapes	156	159	151	144	138	132	121	94	107	151	149
Pipe & Tube	67	69	61	55	54	58	50	43	50	56	62
Total U.S. Shipments excluding Direct Mill Uses											
Total	4,618	4,821 r	4,940	4,527	4,297	4,475	3,990	3,097	3,745	3,745	4,607
Sheet	2,815	2,940 r	3,025	2,724	2,594	2,758	2,651	1,955	2,399	2,254	2,881
Plate	319	285	270	270	273	256	190	189	240	266	281
Rod, Bar & Wire	268	328	391	366	318	384	329	275	331	379	409
Extruded Shapes	993	1,025	1,035	948	914	890	675	562	632	699	859
Pipe & Tube	223	243	219	219	198	187	145	116	143	147	177
Distributor Share (percent)											
Total	34.3	34.0 r	32.3	32.3	32.3	31.5	32.2	30.6	32.0	34.0	29.4
Sheet	36.0	36.8 r	35.3	35.2	35.0	34.1	32.6	30.7	32.6	33.3	28.5
Plate	58.3	62.5	59.3	57.4	55.7	57.0	62.6	55.0	50.0	58.3	54.1
Rod, Bar & Wire	60.8	46.9	40.1	41.5	43.3	34.8	39.8	38.5	42.2	42.4	43.0
Extruded Shapes	15.7	15.5	14.6	15.2	15.1	14.8	17.9	16.7	16.9	21.6	17.3
Pipe & Tube	30.0	28.4	27.9	25.1	27.3	31.0	34.5	37.1	35.0	38.1	35.0

NOTE: In this table, rod, bar and wire includes rod and bar; pipe and tube includes extruded, drawn and welded pipe and tube.

Source: Estimated by the Statistical and Market Research Committee

Shipments of Castings

SHIPMENTS UP 3.9 PERCENT
There were 2,415 million pounds shipped during 1989 versus the prior year's 2,325 million pounds, an increase of 3.9 percent from the previous year.

This table show shipments of aluminum castings separately for sand, permanent mold and die castings, both for sale and own use through the year 1983. Permanent mold shipments for sale and own use were combined in 1984. Own use shipments are for captive consumption in the producers' end products.

Ingot requirements for the castings shipments shown in this table are part of the net ingot shipments shown on pages 5 & 6.

Shipments of Castings
1963-1989

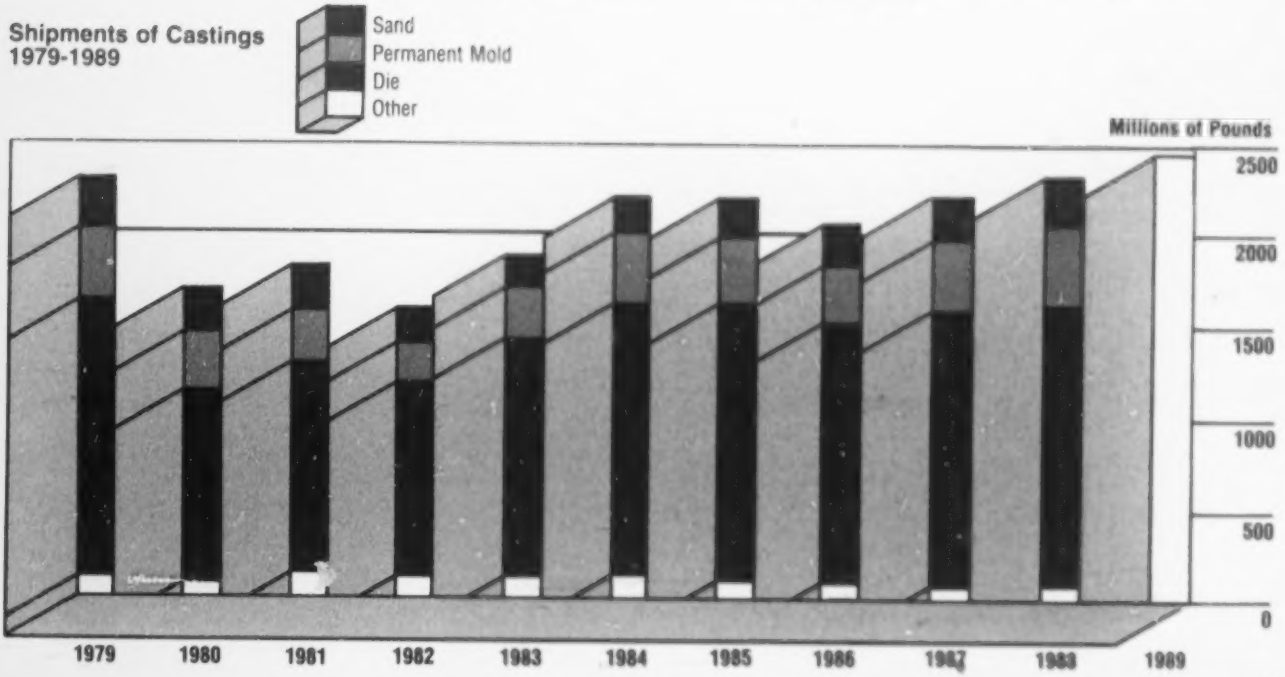
Millions of Pounds

Year*	Total Castings	Sand Castings for sale	Sand Castings own use	Permanent & Semi-permanent Mold Castings for sale	Permanent & Semi-permanent Mold Castings own use	DieCastings for sale	DieCastings own use	Other
1963	1,209.3	160.1	42.1	169.6	159.3	281.2	390.4	6.6
1964	1,257.2	168.9	60.6	179.3	137.4	312.6	386.3	12.1
1965	1,416.7	193.6	72.7	185.2	134.8	391.3	431.7	7.4
1966	1,654.1	220.6	68.0	233.3	156.1	478.7	477.9	19.5
1967	1,488.7	155.3	74.1	203.6	126.8	472.2	434.7	22.0
1968	1,615.2	148.9	58.7	201.5	158.7	510.5	518.3	18.6
1969	1,731.0	155.8	59.5	245.5	160.0	510.9	573.7	25.6
1970	1,541.9	127.0	65.5	188.7	132.3	472.3	530.7	25.4
1971	1,616.8	122.7	62.4	200.2	118.3	500.5	595.4	17.3
1972	1,915.6	158.8	62.4	236.6	143.8	595.8	685.8	32.4
1973	2,113.2	184.1	65.9	247.6	147.8	680.0	735.4	52.4
1974	1,855.4	200.4	58.1	220.1	114.6	617.3	585.5	59.4
1975	1,455.2	146.5	42.9	159.7	90.7	461.4	496.1	57.9
1976	1,971.1	170.3	41.3	203.4	121.8	606.5	721.7	106.1
1977	2,153.4	186.6	33.3	228.0	145.2	682.6	763.0	114.7
1978	2,286.8	210.9	34.9	238.5	148.6	799.8	718.1	136.0
1979	2,302.8	245.5	33.2	265.4	142.2	853.1	663.6	99.8
1980	1,689.8	200.0	33.1	217.2	105.9	633.8	429.2	70.6
1981	1,819.8	207.3	30.8	209.2	82.3	704.1	452.7	133.4
1982	1,605.3	159.0	19.2	161.9	77.2	624.2	434.0	129.8
1983	1,898.1	156.3	10.2	211.8	90.5	812.9	493.3	123.1
1984	2,232.8	183.3	12.6	388.7	(1)	932.9	583.0	132.3
1985	2,229.8	188.7	15.3	390.7	(1)	923.5	596.8	114.8
1986 r	2,204.8	197.6	25.8	390.7	(1)	886.3	601.9	102.5
1987 r	2,220.2	227.3	24.0	385.2	(1)	892.5	614.8	76.4
1988 r	2,324.8	225.8	28.5	443.9	(1)	919.7	623.3	83.6
1989 p	2,415.2	na	na	na	(1)	na	na	na

r - revised
p - preliminary
na - not available at time of publication
(1) Combined with shipments for sale

Source: U.S. Department of Commerce, Bureau of the Census
(*) Prior to 1963, see the Aluminum Statistical Review - Historical Supplement

Shipments of Castings
1979-1989



Market Shipment Highlights—1989

SHIPMENTS UP 3.7 PERCENT
Total industry shipments of aluminum in 1989 increased to level of 17,453 million pounds, up 3.7 percent from the volume of 16,837 million pounds in 1988. Total domestic shipments increased 0.1 percent and exports rose 34.7 percent.

The largest increase occurred in the area of **Containers & Packaging** , up 3.3 percent from 1988.**Containers and Packaging** continue as the industry's largest market in 1989 with a volume of 4,638 million pounds, or 26.7 percent of total shipments. Shipments for metal cans rose 6.1 percent to a total of 3,923 million pounds. Semirigid food containers, household and institutional foil, caps & closures, collapsible tubes and many flexible packaging uses are other important components in this market.

Building and Construction , at 2,858 million pounds, decreased 1.5 percent from a 1988 volume of 2,901 million pounds. Included in this market are residential, industrial, commercial, farm and highway applications as well as mobile homes.

Shipments to the **Transportation** market decreased to a volume of 3,341 million pounds, 1.3 percent less than 1988. Included in this market are passenger cars, trucks and buses, trailers and semitrailers and recreational vehicles.

Electrical market applications showed a 1.2 percent rise to a 1,497 million pound volume in 1989. Wire and cable products rose 3.0 percent.

Shipments to the **Consumer Durable** goods market experienced a 5.7 percent decrease to a volume of 1,222 million pounds. Uses such as large appliances and air conditioning showed decreases.

Shipments to the nonelectrical **Machinery and Equipment** market of 976 million pounds increased 1.8 percent over 1988 levels and accounted for 5.6 percent of the total. Uses include agricultural, contruction and industrial machinery, irrigation pipe, ladders, fasteners and other general industrial equipment.

Exports of aluminum jumped again to record levels in 1989, increasing 34.7 percent to 2,336 million pounds or 10.3 percent of total shipments.

The **average annual growth rate*** for aluminum shipments in the 1979-1989 period was 2.5 percent.

(*) Annual rate calculated by straight line least square method.

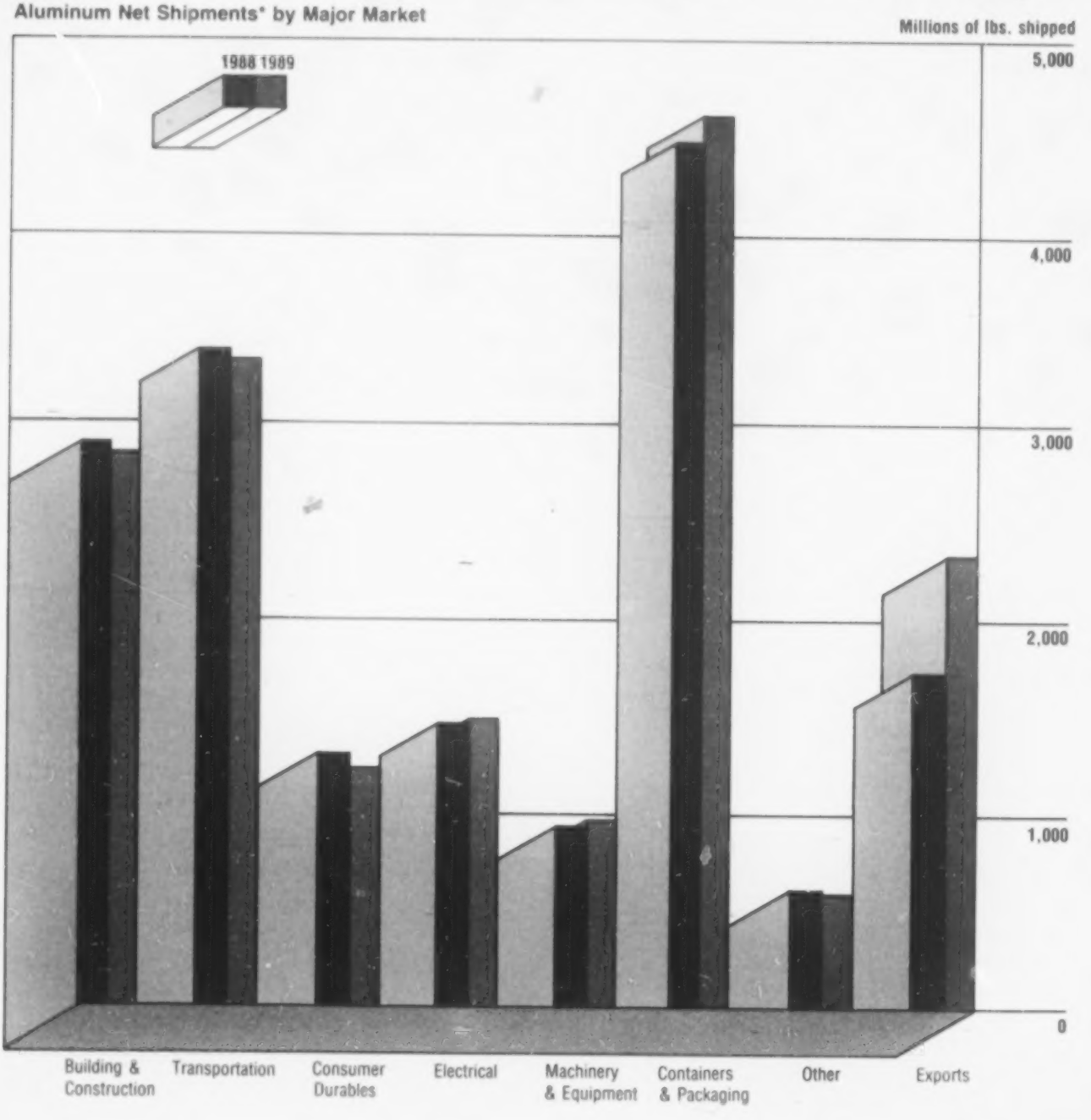
DESCRIPTION:
The Statistical and Market Research Committee of the Aluminum Association, Inc. has developed an annual breakdown of total aluminum industry shipments by major market since 1960. End use data on U.S. aluminum shipments are not available from government sources on a regular basis. Aluminum consumption figures for some industries are published by the U.S. Department of Commerce in the Census of Manufacturers. The most recent such Census covers the year 1987.

In the United States the aluminum industry has identified its major markets as building and construction, transportation, consumer durables, electrical, machinery and equipment, containers and packaging, exports and other end uses. Each of these major markets has a wide range of end uses within it.

Tables on pages 13-17 show considerable detail on the major markets for 1979-1989. Pages 18-20 also depicts trends for 1979-1989 in selected important aluminum uses.

For information on years prior to 1979 see the Aluminum Statistical Review-Historical Supplement.

Aluminum Net Shipments* by Major Market



Shipments by Major Market

Millions of Pounds

Major Market	1989 % Dist.	1989 Amount	1988 % Dist.	1988 Amount	1988-1989 % Change	1988-1989 % Annual Growth
Building & Construction	16.4	2,858	17.2	2,901 r	-1.5	1.3
Transportation	19.1	3,341	20.1	3,386 r	-1.3	3.8
Consumer Durables	7.0	1,222	7.7	1,296 r	-5.7	3.4
Electrical	8.6	1,497	8.8	1,479 r	1.2	0.5
Machinery & Equipment	5.5	976	5.7	959 r	1.8	0.8
Containers & Packaging	26.6	4,638	26.7	4,489	3.3	3.7
Other	3.4	585	3.5	593 r	-1.3	-0.6
Domestic, total	86.6	15,117	89.7	15,103 r	0.1	2.5
Exports	13.4	2,336 e	10.3	1,734	34.7	2.3
Adjusted Net Shipments	100.0	17,453	100.0	16,837 r	3.7	2.5
Statistical Adjustment **		-1,027		-413 r		
Total Net Shipments *		16,426		16,424 r		

r - revised

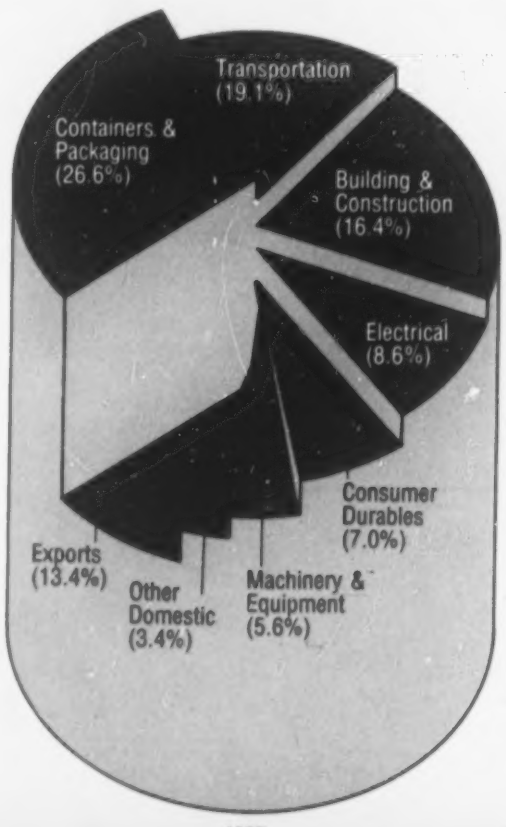
** Net Shipments exclude intra-industry shipments for further fabrication. It is the most accuarate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are eliminated.*

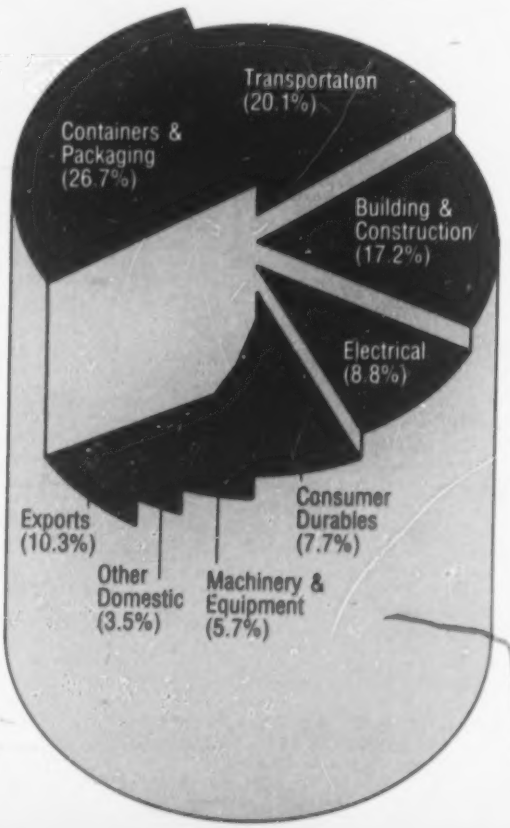
*** Statistical Adjustment accounts for net shipments od aluminum reported by the Bureau of the Census which the Association believes were either over or understated in the amounts indicated due to excessive or insufficient reporting. It also includes otherwise unpublished revisions to Census data. The addition of the adjustment reconciles the amounts reported by the Bureau of the Census with net shipments that the Association feels are mure correct.*

(e) Export figures contain estimated adjustments to account for either an overstatement (or understatement) of U.S. export statistics published by the Bureau of the Census.

Source: Estimated by the Statistical & Market Research Committee of the Aluminum Association, Inc.

Distribution of Aluminum Net Shipments* by Major Market





Product Net Shipments* by Major Market
1979-1989

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Total Aluminum											
Building & Construction	2,858	2,901 r	3,180 r	3,157	3,032	2,866	2,870	2,257	2,553	2,624	3,058
Transportation	3,341	3,386 r	3,294 r	3,025	3,049	3,083	2,427	1,836	2,204	2,247	3,120
Consumer Durables	1,222	1,296 r	1,271	1,190	1,066	1,106	1,054	822	1,000	892	1,055
Electrical	1,497	1,479 r	1,371 r	1,359	1,394	1,478	1,268	1,107	1,324	1,376	1,588
Machinery & Equipment	976	959 r	883	845	832	832	779	704	881	844	985
Containers & Packaging	4,638	4,489	4,524	4,247	4,105	4,031	3,918	3,568	3,512	3,334	3,223
Other	585	593 r	616 r	515 r	583	614	576	526	645	600	652
Domestic, total	15,117	15,103 r	15,139 r	14,338 r	14,061	14,010	12,892	10,820	12,119	11,917	13,681
Exports	2,336 e	1,734	1,255	911	1,204	1,076	1,241	1,295	1,370	2,193	1,023
Aluminum Total	17,453	16,837 r	16,394 r	15,249 r	15,265	15,086	14,133	12,115	13,489	14,110	14,704
Statistical adjustment **	-1,027	-413 r	-13 r	91 r	8	435	20	390	325	241	163
Adjusted aluminum total *	16,426	16,424 r	16,381 r	15,340 r	15,273	15,521	14,153	12,505	13,814	14,351	14,867
Ingot (1)											
Building & Construction	86	80 r	92	107	105	102	91	86	90	86	114
Transportation	1,553	1,531 r	1,461 r	1,348	1,415	1,420	1,172	889	1,017	960	1,349
Consumer Durables	299	288 r	287	306	301	301	275	259	291	265	350
Electrical	217	198 r	187	197	196	196	170	165	190	176	224
Machinery & Equipment	340	311 r	292	299	295	290	256	249	293	274	354
Containers & Packaging	5	5	5	7	12	18	20	15	22	20	15
Other	253	253 r	237	194 r	255	258	248	227	313	294	343
Domestic, total	2,753	2,666 r	2,561 r	2,458 r	2,579	2,585	2,232	1,889	2,216	2,075	2,749
Exports	1,342	912	628	472	786	594	813	817	706	1,445	419
Ingot Total	4,095	3,578 r	3,189 r	2,930 r	3,365	3,179	3,045	2,706	2,922	3,520	3,168
Statistical adjustment **	-915	-397 r	-48 r	40 r	-	400	-	384	314	204	119
Adjusted ingot total *	3,180	3,181 r	3,141 r	2,970	3,365	3,579	3,045	3,090	3,236	3,724	3,287
Mill Products											
Building & Construction	2,772	2,821	3,088	3,050	2,927	2,764	2,779	2,171	2,463	2,538	2,944
Transportation	1,788	1,855	1,833	1,677	1,634	1,663	1,255	948	1,187	1,287	1,771
Consumer Durables	923	1,008	984	884	765	805	779	563	709	627	705
Electrical	1,280	1,281 r	1,184 r	1,162	1,198	1,282	1,098	942	1,134	1,200	1,364
Machinery & Equipment	636	648	591	546	537	542	523	455	588	570	631
Containers & Packaging	4,633	4,484	4,519	4,240	4,093	4,013	3,898	3,553	3,490	3,314	3,208
Other	332	340 r	379 r	321	328	356	328	299	332	306	309
Domestic, total	12,364	12,437 r	12,578 r	11,880	11,482	11,425	10,660	8,931	9,903	9,842	10,932
Exports	994 e	822	627	439	418	482	428	478	664	748	604
Mill Products Total	13,358	13,259 r	13,205 r	12,319	11,900	11,907	11,088	9,409	10,567	10,590	11,536
Statistical adjustment **	-112	-16 r	35 r	51	8	35	20	6	11	-37	44
Adjusted mill products total *	13,246	13,243	13,240 r	12,370	11,908	11,942	11,108	9,415	10,578	10,627	11,580

Product Net Shipments* by Major Market

Product Net Shipments* by Major Market 1979-1989

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Sheet											
Building & Construction	1,293	1,293	1,501	1,401	1,350	1,295	1,424	1,022	1,190	1,250	1,597
Transportation	738	811	792	712	676	720	567	386	499	499	824
Consumer Durables	468	531	532	476	418	411	437	295	380	333	353
Electrical	287	291	266	243	243	264	218	186	242	199	243
Machinery & Equipment	331	336	318	290	288	285	285	229	282	258	267
Containers & Packaging	4,039	3,831	3,868	3,626	3,509	3,395	3,275	2,977	2,869	2,693	2,559
Other	88	80 r	112 r	73	66	80	82	65	74	64	74
Domestic, total	7,244	7,173 r	7,389 r	6,821	6,550	6,450	6,288	5,160	5,536	5,296	5,917
Exports	785 e	644	469	337	303	373	296	296	368	375	374
Sheet Total (4)	8,029	7,817 r	7,858 r	7,158	6,853	6,823	6,584	5,456	5,904	5,671	6,291
Statistical adjustment **	-20	-27	-20	-23	-24	-10	15	15	-4	-11	11
Adjusted sheet total *	8,009	7,790 r	7,838 r	7,135	6,829	6,813	6,599	5,471	5,900	5,660	6,302
Plate											
Building & Construction	1	1	1	1	1	1	1	1	1	1	1
Transportation	269	236	224	227	238	224	155	151	179	216	220
Consumer Durables	1	1	1	1	1	1	1	1	1	1	1
Electrical	4	4	4	5	4	4	4	4	18	5	10
Machinery & Equipment	24	23	22	19	18	21	16	18	29	30	37
Other	20	21 r	20 r	17	16	13	13	14	12	13	12
Domestic, total	319	286 r	272 r	270	278	264	190	189	240	266	281
Exports	44 e	41	34	23	26	30	23	27	43	51	30
Plate Total	363	327 r	306 r	293	304	294	213	216	283	317	311
Statistical adjustment **	-	-	-	-	-5	-8	-	-	-	-	-
Adjusted plate total *	363	327 r	306 r	293	299	286	213	216	283	317	311
Foil											
Building & Construction	39	45	57	48	46	38	38	26	35	29	38
Transportation	64	63	61	52	52	49	45	29	32	31	41
Consumer Durables	168	167	157	131	115	134	106	77	112	84	112
Electrical	9	9	9	11	13	20	22	19	25	23	30
Machinery & Equipment	13	15	15	14	15	17	16	14	17	16	20
Containers & Packaging	590	650	648	611	580	613	613	570	614	614	640
Other	8	12 r	14 r	9	7	7	5	3	8	5	3
Domestic, total	891	961 r	961 r	876	828	878	845	738	843	802	884
Exports	30 e	34	32	13	12	12	11	13	21	38	21
Foil Total	921	995 r	993 r	889	840	890	856	751	864	840	905
Statistical adjustment **	20	27	-62	23	25	7	-	-	-	-	-
Adjusted foil total *	941	1,022 r	931 r	912	865	897	856	751	864	840	905
Extruded Shapes											
Building & Construction	1,345	1,392	1,435 r	1,506	1,432	1,334	1,233	1,045	1,163	1,176	1,215
Transportation	484	513	540	488	470	479	345	270	325	390	499
Consumer Durables	185	193	191	183	151	134	103	79	88	96	117
Electrical	120	125	119	114	119	110	74	71	76	88	106
Machinery & Equipment	136	129	116	106	106	90	75	71	80	88	108
Containers & Packaging	-	-	-	-	-	1	3	-	-	-	1
Other	65	65	72	55	68	76	75	72	63	37	28
Domestic, total	2,335	2,417	2,473	2,452	2,346	2,224	1,908	1,608	1,795	1,875	2,074
Exports	33 e	26	28	16	16	11	10	9	9	25	22
Extruded Shapes Total	2,368	2,443	2,501 r	2,468	2,362	2,235	1,918	1,617	1,804	1,900	2,096
Statistical adjustment **	3	-	-	-	-	-	-	-	-	-	-
Adj. extruded shapes total *	2,371	2,443	2,501 r	2,468	2,362	2,235	1,918	1,617	1,804	1,900	2,096

Product Net Shipments* by Major Market
1979-1989

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Extruded Pipe & Tube											
Building & Construction	32	32	32	35	37	33	25	31	23	23	31
Transportation	61	61	54	45	49	35	26	16	20	16	18
Consumer Durables	74	86	75	68	56	44	31	25	22	24	21
Electrical	97	95	86	98	89	67	59	49	51	62	37
Machinery & Equipment	41	42	33	38	29	15	14	16	21	26	29
Containers & Packaging	-	-	-	-	-	-	-	-	-	-	-
Other	8	7	8	11	8	7	6	3	4	4	2
Domestic, total	313	323	288	295	268	201	161	140	141	155	138
Exports	17	17	15	10	10	9	9	12	14	15	15
Extruded Pipe & Tube Total (3)	330	340	303	305	278	210	170	152	155	170	153
Statistical adjustment **	-40	-30	-20	-22	-22	-24	-30	-50	-27	-29	-
Adj. ext. pipe & tube total *	290	310	283	283	256	186	140	102	128	141	153
Drawn Tube											
Building & Construction						3	3	2	3	3	3
Transportation						9	6	5	8	11	17
Consumer Durables						17	22	21	28	28	34
Electrical						8	9	9	9	10	10
Machinery & Equipment						14	17	17	19	20	21
Containers & Packaging						-	-	-	-	-	-
Other						4	7	6	7	8	10
Domestic, total						55	64	60	74	80	95
Exports						1	1	1	1	1	1
Drawn Tube Total						56	65	61	75	81	96
Statistical adjustment **						-	-	-	-	-	-
Adjusted drawn tube total *	[3]	[3]	[3]	[3]	[3]	56	65	61	75	81	96
Welded Tube											
Building & Construction						1	1	1	2	2	2
Transportation						-	-	-	1	1	1
Consumer Durables						38	52	45	54	36	41
Electrical						2	3	3	4	4	4
Machinery & Equipment						15	14	13	46	41	44
Containers & Packaging						-	-	-	-	-	-
Other						1	1	1	3	2	2
Domestic, total						57	71	63	110	86	94
Exports											
Welded Tube Total						57	71	63	110	86	94
Statistical adjustment **						3	-15	-15	4	11	-11
Adjusted welded tube total *	[4]	[4]	[4]	[4]	[4]	60	56	48	114	97	83
Rod & Bar (2)											
Building & Construction	11	11	14	13	22	27	25	23	25	29	29
Transportation	45	46	45	46	41	45	40	29	31	35	40
Consumer Durables	15	16	15	14	13	15	17	11	13	15	15
Electrical	75	85	77	70	71	85	72	66	92	97	93
Machinery & Equipment	58	66	53	51	52	53	54	46	52	51	53
Containers & Packaging	-	-	-	-	-	-	-	-	-	1	1
Other	30	36	31	30	21	29	21	24	20	26	26
Domestic, total	234	260	235	224	220	254	229	199	233	254	257
Exports	40	24	23	21	23	22	24	52	103	137	62
Rod & Bar Total	274	284 r	258 r	245	243	276	253	251	336	391	319
Statistical adjustment **	-109	4 r	107 r	30	-	55	49	34	51	109	84
Adjusted rod & bar total *	165	288 r	365 r	275	243	331	302	285	387	500	403

Product Net Shipments* by Major Market

Product Net Shipments* by Major Market 1979-1989

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Bare Wire											
Building & Construction	51	47	48	46	39	31	28	19	20	24	27
Transportation	15	15	13	12	12	9	4	4	4	5	8
Consumer Durables	8	8	8	6	6	5	5	4	5	5	6
Electrical	10	9	9	7	7	9	8	8	9	11	11
Machinery & Equipment	17	20	16	12	14	15	16	16	22	21	28
Containers & Packaging	4	3	3	3	4	4	7	6	7	6	7
Other	4	6	5	5	4	2	2	3	3	4	6
Domestic, total	109	108	102	91	86	75	70	60	70	76	93
Exports	16	11	10	7	9	6	10	12	25	58	30
Bare Wire Total	125	119	112	98	95	81	80	72	95	134	123
Statistical adjustment **	34	10	10	21	12	-	-19	-18	-23	-60	-25
Adjusted bare wire total *	159	129	122	119	107	81	61	54	72	74	98
ACSR & Bare Cable											
Building & Construction	-	-	-	-	-	-	-	-	-	-	-
Transportation	-	-	-	-	-	-	-	-	-	-	-
Consumer Durables	-	-	-	-	-	-	-	-	-	-	-
Electrical	293	280r	224r	238	277	341	324	299	311	367	387
Machinery & Equipment	-	-	-	-	-	-	-	-	-	-	-
Containers & Packaging	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
Domestic, total	293	280r	224r	238	277	341	324	299	311	367	387
Exports	6e	4	2	1	5	5	35	46	68	25	31
ACSR & Bare Cable Total	299	284r	226r	239	282	346	359	345	379	392	418
Statistical adjustment**	-	-	-	-	-	-	-	-	-	8	-
Adj. ACSR & bare cable total*	299	284r	226r	239	282	346	359	345	379	400	418
Insulated or Covered Wire & Cable											
Building & Construction	-	-	-	-	-	-	-	-	-	-	-
Transportation	-	-	-	-	-	-	-	-	-	-	-
Consumer Durables	-	-	-	-	-	-	-	-	-	-	-
Electrical	384	381	388	374	373	369	302	225	293	330	428
Machinery & Equipment	-	-	-	-	-	-	-	-	-	-	-
Containers & Packaging	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
Domestic, total	384	381	388	374	373	369	302	225	293	330	428
Exports	3	1	-	-	1	1	1	1	2	4	-
Insulated Wire & Cable Total	387	382	388	374	374	370	303	226	295	334	428
Statistical adjustment **	-	-	20	22	22	24	30	50	27	29	-
Adj. insul. wire & cable tot *	387	382	408	396	396	394	333	276	322	363	428
Forgings											
Building & Construction	-	-	-	-	-	1	1	1	1	1	1
Transportation	105	103	97	87	89	87	62	53	82	79	98
Consumer Durables	1	1	1	1	1	1	1	1	2	2	2
Electrical	-	-	-	-	-	1	1	1	1	1	1
Machinery & Equipment	11	10	10	9	9	9	8	8	10	10	13
Containers & Packaging	-	-	-	-	-	-	-	-	-	-	-
Other	12	17	13	15	17	12	13	12	10	11	8
Domestic, total	129	131	121	112	116	111	86	76	106	104	123
Exports	10e	8	7	5	7	4	3	3	3	3	4
Forgings Total	139	139	128	117	123	115	89	79	109	107	127
Statistical adjustment **	-20	-20	-20	-20	-15	-	-	-	-	-	-
Adjusted forgings total *	119	119	108	97	108	115	89	79	109	107	127

Product Net Shipments* by Major Market
1979-1989

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Impacts											
Building & Construction	-	-	-	-	-	-	-	-	-	-	-
Transportation	7	7	7	8	7	6	5	5	6	4	5
Consumer Durables	3	5	4	4	4	5	4	4	4	3	3
Electrical	1	2	2	2	2	2	2	2	3	3	4
Machinery & Equipment	5	7	8	7	6	8	8	7	10	9	11
Containers & Packaging	-	-	-	-	-	-	-	-	-	-	-
Other	4	6	7	6	6	8	9	7	7	7	8
Domestic, total	20	27	28	27	25	29	28	25	30	26	31
Exports	-	-	-	-	-	-	-	-	-	-	-
Impacts Total	20	27	28	27	25	29	28	25	30	26	31
Statistical adjustment **	20	20	20	20	15	-	-	-	-	-	-
Adjusted impacts total *	40	47	48	47	40	29	28	25	30	26	31
Powder & Paste											
Building & Construction	-	-	-	-	-	-	-	-	-	-	-
Transportation	-	-	-	-	-	-	-	-	-	-	-
Consumer Durables	-	-	-	-	-	-	-	-	-	-	-
Electrical	-	-	-	-	-	-	-	-	-	-	-
Machinery & Equipment	-	-	-	-	-	-	-	-	-	-	-
Containers & Packaging	-	-	-	-	-	-	-	-	-	-	-
Other	93	90	97	100	115	117	94	89	121	125	130
Domestic, total	93	90	97	100	115	117	94	89	121	125	130
Exports	10	12	7	6	6	8	5	6	7	16	14
Powder & Paste Total	103	102	104	106	121	125	99	95	128	141	144
Statistical adjustment **	-	-	-	-	-	-12	-10	-10	-17	-20	-15
Adj. powder & paste total *	103	102	104	106	121	113	89	85	111	121	129

r - revised

** Total mill products are net shipments of aluminum mill products as reported by domestic producers to the U.S. Department of Commerce, plus imported mill products. Prior to 1987, import receipts to domestic producers were substracted.*

*** Statistical Adjustment accounts for net shipments of aluminum reported by the Bureau of the Census which the Association believes were either over or understated in the amounts indicated due to excessive or insufficient reporting. It also includes otherwise unpublished revisions to Census data. The addition of the adjustment reconciles the amounts reported by the Bureau of the Census with net shipments that the Association feels are more correct.*

e - Export figures contain estimated adjustments to account for either an overstatement (or understatement) of U.S.export statistics published by the Bureau of the Census.

(1) Includes primary and secondary ingot for castings, destructive uses and exports.
(2) Extruded rod and bar combined with rolled and continious cast rod and bar.
(3) Drawn tube combined with extruded pipe and tube.
(4) Welded tube combined with sheet.

Note: Net Shipments exclude intra-industry shipments for further fabrication. It is the most accuarate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are eliminated.

For information prior to 1979, see the Alunminum Statistical Review - Historical Supplement.

Source: Estimated by the Statistical & Market Research Committee of the Aluminum Association, Inc.

Trends in Selected Markets

Trends in Selected Markets 1979-1989

BUILDING & CONSTRUCTION

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Windows, doors & screens total	977	1,033 r	1,102 r	1,136	1,080	987	949	748	845	851	903
Ingot	30	31 r	34	40	37	37	33	30	34	36	46
Total mill products	947	1,002	1,068 r	1,096	1,043	950	916	718	811	815	857
Sheet	161	159	181	168	168	152	154	108	131	118	130
Plate	1	1	1	1	1	1	1	1	1	1	1
Extruded shapes	760	817	860	902	845	766	733	585	651	665	695
Rod & bar (1)	-	-	-	-	9	15	14	11	14	16	15
Bare wire	25	25	26	25	20	16	14	13	14	15	16
Awnings and canopies, total	99	97 r	132	129	132	147	152	105	114	143	156
Sheet	80	78	111	109	111	122	130	86	93	121	131
Extruded shapes	17	18	20	18	19	22	19	16	18	19	21
Extruded pipe & tube (3)	1	1	1	2	2	1	1	1	1	1	2
Drawn tube (3)	-	-	-	-	-	1	1	1	1	1	1
Welded tube (4)	-	-	-	-	-	1	1	1	1	1	1
Residential siding, total	412	425 r	503 r	465 r	454 r	407 r	469 r	326 r	396 r	452 r	579 r
Sheet	410	423 r	501 r	463 r	452 r	405 r	467 r	324 r	394 r	449 r	576 r
Extruded shapes	2	2 r	2 r	2 r	2 r	2 r	2 r	2 r	2 r	3 r	3 r
Mobile homes, total	139	145	178	185	193	183	217	161	174	156	209
Ingot	4	4	5	6	5	5	5	4	4	3	5
Total mill products	135	141	173	179	188	178	212	157	170	153	204
Sheet	79	83	104	103	114	111	140	106	115	102	144
Extruded shapes	56	58	69	76	74	67	72	51	55	51	60
Bridge, street & highway total	110	121 r	133	138	131	112	112	95	93	101	128
Ingot	12	12 r	14	16	16	16	14	13	12	12	16
Total mill products	98	109	119	122	115	96	98	82	81	89	112
Sheet	52	62	71	72	65	52	61	47	48	52	66
Foil	1	1	1	1	1	1	1	1	1	1	1
Extruded shapes	21	22	22	23	22	20	19	15	16	18	22
Pipe & tube (3)	23	23	23	24	25	22	16	18	15	17	22
Rod & bar (1)	1	1	2	2	2	1	1	1	1	1	1

Trends in Selected Markets 1979-1989

TRANSPORTATION

Millions of Pounds

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Trucks & buses, total	479	496 r	470	436	419	466	357	273	310	287	497
Ingot	235	225 r	205	200	200	212	183	151	148	136	216
Total mill products	244	271	265	236	219	254	174	122	162	151	281
Sheet	129	148	144	128	123	151	96	68	85	77	158
Plate	7	6	6	5	5	4	4	3	4	4	8
Foil	1	1	1	1	1	1	-	-	-	-	-
Rod & bar [1]	2	2	2	1	1	1	2	2	2	2	5
Extruded shapes	61	68	70	65	55	60	49	32	45	44	69
Extruded pipe & tube [3]	3	3	2	2	2	1	1	1	1	1	1
Drawn tube [3]	-	-	-	-	-	1	1	1	1	1	1
Bare wire	-	-	-	-	-	-	-	-	-	-	1
Forgings	40	42	39	33	31	34	20	14	23	21	37
Impacts	1	1	1	1	1	1	1	1	1	1	1
Passenger cars, total [2]	1,651	1,691 r	1,617 r	1,484 r	1,547	1,542	1,279	911	1,105	1,046	1,501
Ingot	1,200	1,198 r	1,149 r	1,040 r	1,109	1,108	917	662	781	746	1,008
Total mill products	451	493	468	444	438	434	362	249	324	300	493
Sheet	267	313	296	286	274	284	235	156	199	180	333
Plate	2	2	2	1	1	1	1	1	1	1	1
Foil	59	56	55	47	46	43	40	26	28	24	36
Rod & bar [1]	21	22	20	22	20	18	19	9	9	10	11
Extruded shapes	46	46	49	46	53	43	34	37	59	61	73
Extruded pipe & tube [3]	40	39	33	26	27	22	18	9	13	9	10
Drawn tube [3]	-	-	-	-	-	5	3	1	4	7	12
Bare wire	2	2	2	3	3	4	1	1	1	1	1
Forgings	12	11	9	11	12	12	10	8	8	6	14
Impacts	2	2	2	2	2	2	1	1	2	1	2
Trailers & semitrailers, total	413	424 r	450	388	386	425	301	174	211	243	388
Ingot	28	28 r	32	28	30	31	20	17	20	21	33
Total mill products	385	396	418	360	356	394	281	157	191	222	355
Sheet	156	153	167	143	140	158	124	62	78	88	143
Plate	8	9	9	10	11	9	7	4	7	9	14
Rod & bar [1]	1	1	1	1	1	1	1	1	1	1	2
Extruded shapes	214	229	237	203	201	222	147	88	103	122	194
Extruded pipe & tube [3]	3	3	3	2	2	2	1	1	1	1	1
Bare wire	2	1	1	1	1	2	1	1	1	1	1
Forgings	1	-	-	-	-	-	-	-	-	-	-

Trends in Selected Markets

Trends in Selected Markets 1979-1989

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
CONSUMER DURABLES											Millions of Pounds
Air conditioners, freezers refregerators, total	436	446 r	417	375	315	337	275	219	290	249	304
Ingot	42	39 r	35	36	33	32	30	25	33	29	38
Total mill products	394	407	382	339	282	305	245	194	257	220	266
Sheet	152	157	150	134	118	125	108	95	117	106	116
Foil	164	163	159	129	113	132	104	75	109	81	108
Rod & bar (1)	1	1	1	1	1	1	2	-	-	-	-
Extruded shapes	33	33	32	31	17	15	13	12	13	13	19
Extruded pipe & tube (3)	44	53	49	44	33	30	16	11	14	12	13
Drawn tube (3)						2	2	1	4	8	10
Portable appliances, total	52	51 r	52	49	47	53	55	44	59	56	70
Ingot	28	27 r	28	30	28	31	30	26	31	30	41
Total mill products	24	24	24	19	19	22	25	18	28	26	29
Sheet	21	21	21	17	16	18	21	14	23	22	24
Extruded shapes	2	2	2	1	2	2	2	3	3	2	2
Extruded pipe & tube (3)	1	1	1	1	1	1	1	1	1	1	2
Rod & bar (1)	-	-	-	-	-	1	1	-	1	1	1
Cooking utensils, total	119	142 r	159	151	150	175	206	136	171	161	152
Ingot	19	21 r	24	26	25	26	24	22	26	24	27
Total mill products	100	121	135	125	125	149	182	114	145	137	125
Sheet	97	118	132	122	121	144	177	109	140	132	121
Extruded shapes	2	2	2	2	3	4	4	4	4	4	3
Bare wire	1	1	1	1	1	1	1	1	1	1	1
CONTAINERS & PACKAGING											
Household & institutional foil, total	269	281	285	270	267	270	283	270	287	283	290
Metal cans, total	3,923	3,698	3,732	3,502	3,381	3,251	3,140	2,858	2,725	2,583	2,445
Sheet	3,923	3,698	3,732	3,502	3,381	3,251	3,140	2,858	2,725	2,583	2,445
Semi-rigid food containers, total	138	161	163	167	157	173	158	134	153	160	159
Sheet	19	25	30	27	25	33	21	19	38	20	22
Foil	119	136	133	140	132	140	137	115	115	140	137

r - revised

** - These selected markets represent either those in which the Association has marketing programs or which are important aluminum categories. They only account for a portion of aluminum shipments to each major market.*
(1) Extruded rod and bar combined with rolled and continious cast rod and bar.
(2) Shipment to Passenger Cars cover new domestic automobile production, spare parts, accessories and after-market parts. Shipments for light trucks andvans are included in Trucks and Buses.
(3) Drawn tube combined with extruded pipe and tube.
(4) Welded tube combined with sheet.

Note: For information prior to 1979, see the Alunminum Statistical Review - Historical Supplement.

SOURCE: Estimated by the Statistical & Market Research Committee of the Aluminum Association.

U.S. Aluminum Supply

The U.S. aluminum supply decreased 94,000 metric tons in 1989 to a total of 7,441,000 metric tons. This represents a 1.2 percent decline compared to the 1988 supply level. Primary production at 4,030,211 metric tons was up 2.2 percent from the 1988 production of 3,944,528.

Primary imports of 926,000 metric tons were 9.8 percent less than the 1988 level of 1,027,000 metric tons. Imports of mill products increased 0.2 percent to 441,000 metric tons during 1989 as compared to 440,000 metric tons in 1988.

Import data for both years reflect the reimports of metal exported for processing and returned for further processing.

Secondary recovery (domestic and imports) was 2,044,000 metric tons, down 3.7 percent from 1988.

The graph on page 22 illustrates the relative change in the portions of total aluminum supplies from each source for the years 1979 through 1989.

The table on page 23 details the total supply of aluminum and its principal sources for the years 1942 through 1989 before any adjustments for stockpile deliveries or withdrawals.

U.S. primary aluminum production over the past decade is outlined on the graph and detailed in the table on page 25.

Installed capacity by company is presented for the years 1979 through 1989 on page 26. The 1989 year-end primary aluminum capacity in the U.S. was 4,087,100 metric tons, up 4.7 percent from 1988.

Aluminum recovery from scrap is an important contributor to the total aluminum supply. Data showing the increase in the source of supply for the years 1946 through 1989 are presented on pages 30 and 31.

Used beverage cans are an important part of the U.S. aluminum supply. In 1989, U.S. consumers recycled almost 1.7 billion pounds of used beverage cans.

Total Supply

1989 SUPPLY DOWN 1.2 PERCENT

Total supply decreased 1.2 percent to 7,441,000 metric tons in 1989.

Changes vs. 1988

Primary Production	+2.2%
Imports, Primary	-9.8%
Imports, Mill Products	+0.2%
Secondary Recovery	-3.7%

Since 1979 the total supply has expanded at an average rate of 1.0 percent a year. In 1989 primary production represented 54 percent of total supply; imports accounted for 18 percent; and secondary recovery represented 27 percent.

In the ten years 1979-1989, secondary recovery grew at a 2.5 percent annual rate, while primary production decreased at a 2.1 percent annual rate.

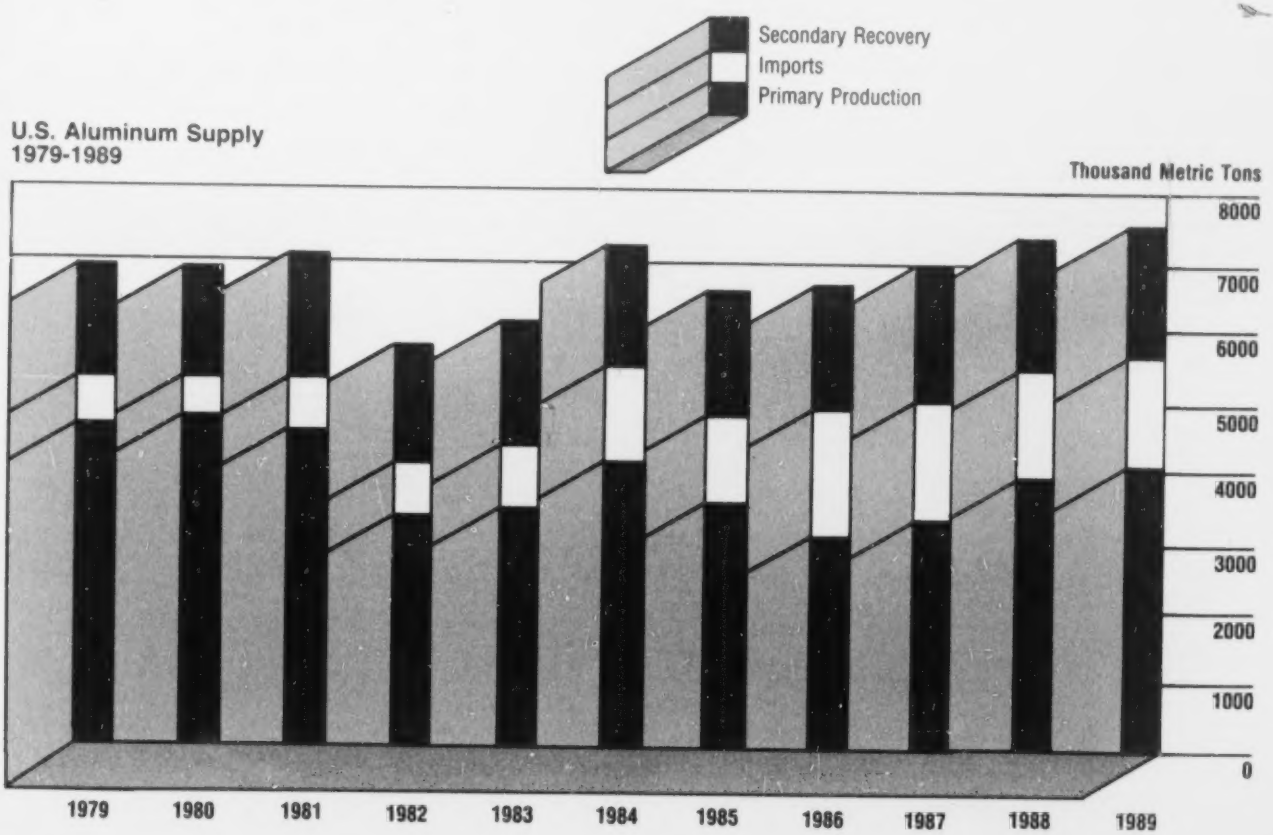
DESCRIPTION:

United States supply of aluminum consists of domestic primary production, imports of primary and mill products, and metal recovered from scrap. No adjustment is made in this presentation for shipments or withdrawals from the government stockpile.

Detailed data on United States supply of aluminum from 1942 to 1989 are shown in the table on page 23.

For a picture of domestic primary production, see page 25. For the relationship of domestic primary production to world production, see pages 44-45. For a breakdown of imports, see pages 38-39. For further in formation on secondary recovery, see pages 30 and 31.

U.S. Aluminum Supply 1979-1989



Total Supply
1942 - 1989

Thousands of Metric Tons

Year	Total Supply	Domestic Primary Production	Imports			Secondary Recovery		
			Total	Primary[1]	Mill Products[3]	Total	Domestic[2]	Imported Scrap[1][2]
1942	753	473	102	97	5	178	178	(*)
1943	1,242	835	123	123	(*)	285	285	(*)
1944	1,092	704	91	91	(*)	297	295	1
1945	1,029	449	305	302	3	275	271	4
1946	674	371	39	38	1	264	252	12
1947	859	519	14	14	(*)	326	313	13
1948	965	566	81	75	5	319	260	59
1949	822	547	78	70	7	197	164	33
1950	1,099	652	171	161	10	276	221	55
1951	1,171	759	130	111	19	282	265	16
1952	1,264	850	131	116	15	282	276	6
1953	1,795	1,136	303	273	30	356	334	22
1954	1,830	1,325	214	201	13	291	284	7
1955	2,014	1,420	200	179	21	393	376	18
1956	2,153	1,523	232	210	22	398	388	10
1957	2,133	1,495	224	205	20	415	404	11
1958	2,009	1,420	259	232	28	329	321	8
1959	2,457	1,773	268	218	50	416	407	9
1960	2,406	1,828	178	140	38	401	397	4
1961	2,402	1,727	230	181	49	445	440	5
1962	2,796	1,921	341	282	59	533	528	5
1963	3,118	2,098	419	377	42	601	593	8
1964	3,372	2,316	409	357	51	648	641	7
1965	3,817	2,499	543	479	65	774	752	22
1966	4,116	2,693	591	475	116	833	805	28
1967	4,254	2,966	466	408	59	821	797	25
1968	4,572	2,953	684	622	62	935	904	31
1969	4,991	3,441	484	425	59	1,067	1,043	24
1970	4,950	3,607	406	318	88	937	907	30
1971	5,146	3,561	582	503	78	1,004	953	51
1972	5,445	3,740	684	598	86	1,022	1,022	(2)
1973	5,759	4,109	523	461	63	1,127	1,127	(2)
1974	6,123	4,448	511	461	50	1,163	1,163	(2)
1975	5,093	3,519	453	394	59	1,121	1,121	(2)
1976	5,799	3,857	608	522	86	1,334	1,334	(2)
1977	6,256	4,117	683	608	75	1,456	1,456	(2)
1978	6,783	4,358	907	688	220	1,518	1,518	(2)
1979	6,880	4,557	711	518	193	1,612	1,612	(2)
1980	6,833	4,653	603	527	76	1,577	1,577	(2)
1981	7,061	4,489	782	645	138	1,790	1,790	(2)
1982	5,762	3,274	823	616	207	1,666	1,666	(2)
1983	6,149	3,353	1,023	743	281	1,773	1,773	(2)
1984	7,235	4,099	1,376	882	494	1,760	1,760	(2)
1985	6,594	3,500	1,332	869	463	1,762	1,762	(2)
1986	6,655	3,039	1,843	1,349	494	1,773	1,773	(2)
1987	7,035	3,347	1,702	1,246	456	1,986	1,986	(2)
1988	7,534	3,945	1,467	1,027	440	2,122	2,122	(2)
1989p	7,441	4,030	1,367	926	441	2,044	2,044	(2)

Detail may not add due to rounding.
p - preliminary

(*) Less than 0.5 metric tons - Conversion Factor: One metric ton = 2,204.6 pounds.

(1) Some imports of starter metal, classified by the Bureau of the Census in 1954-57 as scrap, have been classified as primary metal, as estimated by the Dept. of Commerce.

(2) Domestic secondary data are recoverable metal content for estimated total scrap consumption, as estimated by the Bureau of Mines. Before 1972, total supply included secondary recovery and an estimated 90 percent recovery from reported scrap imports. Beginning in 1972 the Bureau of Mines required reporting of imported scrap recovery data and these data are included in the domestic recovery figures beginning that year.

(3) Starting in 1970, includes reimports of metal exported for processing and returned for further processing.

Source: U.S. Department of Commerce - Bureau of the Census and U.S. Department of Interior - Bureau of Mines

U.S. Suppliers' Inventories

INVENTORIES DOWN 2.6 PERCENT

The Bureau of the Census began reporting U.S. Suppliers' aluminum inventory in 1968. The figures include all forms of scrap, ingot, metal in process and finished products. During 1989 inventories decreased by 108 million pounds to a year-end inventory of 4,043 million pounds.

U.S. Suppliers' Inventories 1979-1989

Millions of pounds at the end of the year

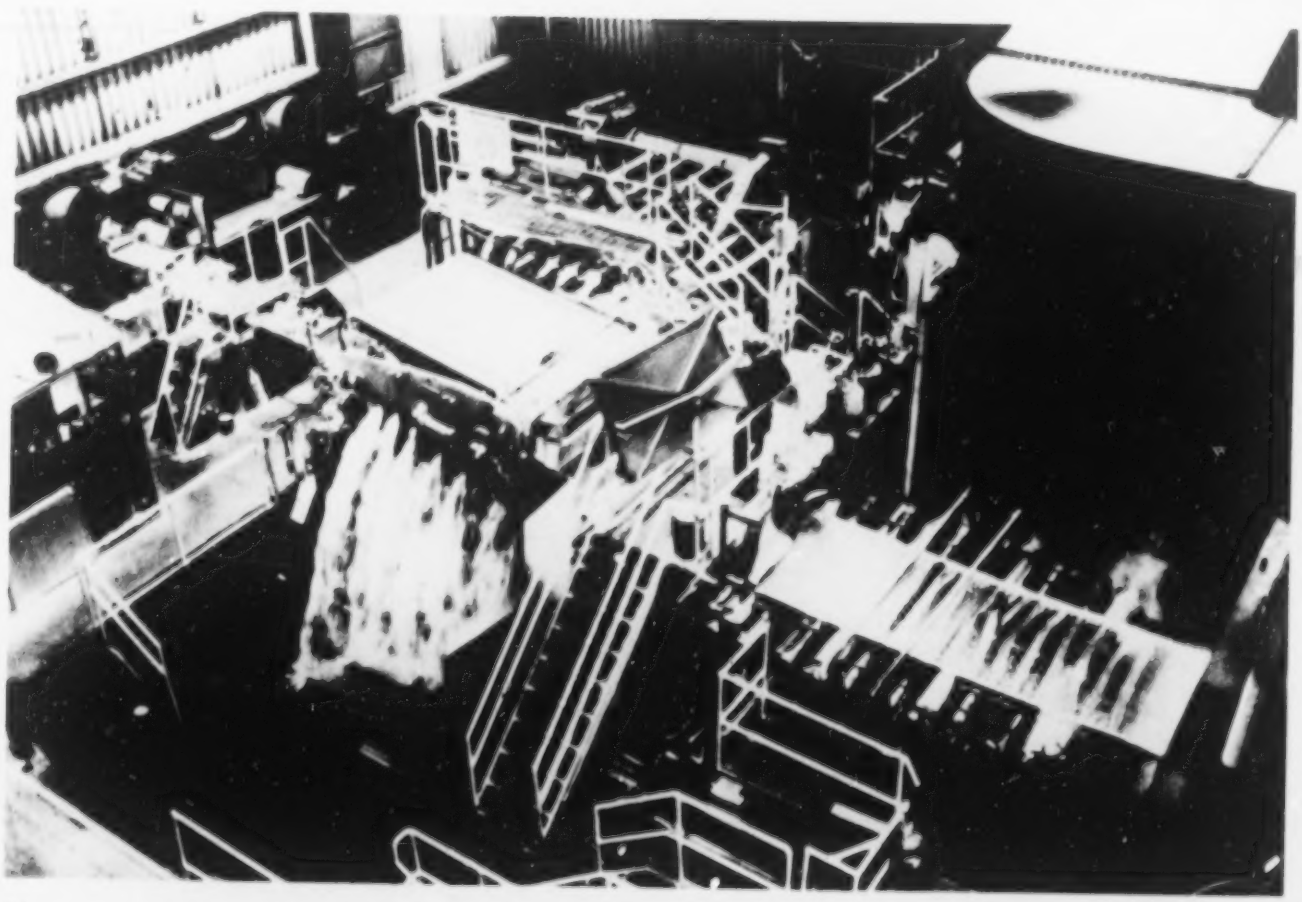
	Type of Supplier			
Year*	Total	Integrated	Non Integrated	Secondary Smelter
1979	5,125	4,124	768	233
1980	5,076	4,018	797	261
1981	6,607	5,542	798	266
1982	6,199	5,224	759	216
1983	4,994	3,979	853	163
1984	5,850	4,692	929	229
	Total	**Ingot**	**Scrap**	**Other**
1985	5,165	2,235	567	2,364
1986	4,928	1,973	630	2,324
1987	4,175	1,466	587	2,123
1988	4,151	1,410	650	2,091
1989	4,043	1,402	661	1,980

Detail may not add due to rounding

** Prior to 1979 consult the Aluminum Statistical Review - Historical Supplement*

Source: U.S. Department of Commerce, Bureau of the Census - Current Industrial Reports

The use of efficient processing methods, such as this this continious casting operation, is part of the aluminum industry's efforts to conserve valuable energy.



Production of Primary Aluminum

PRODUCTION UP 2.2 PERCENT
Primary aluminum production totaled 4,030,211 metric tons in 1989 vs. the production of 3,944,528 metric tons in 1988. In the decade 1979-1989 the average annual rate of change was -2.5 percent.

DESCRIPTION:

In the United States, primary production of aluminum was begun in 1888 by the Pittsburgh Reduction Company. Data on aluminum production started in 1893, covering the industry from its very early period.

Data for 1979-1989 are presented here for your review. Data prior to 1979 may be obtained from the Aluminum Statistical Review-Historical Supplement.

Production of Primary Aluminum in U.S.A. 1979-1989

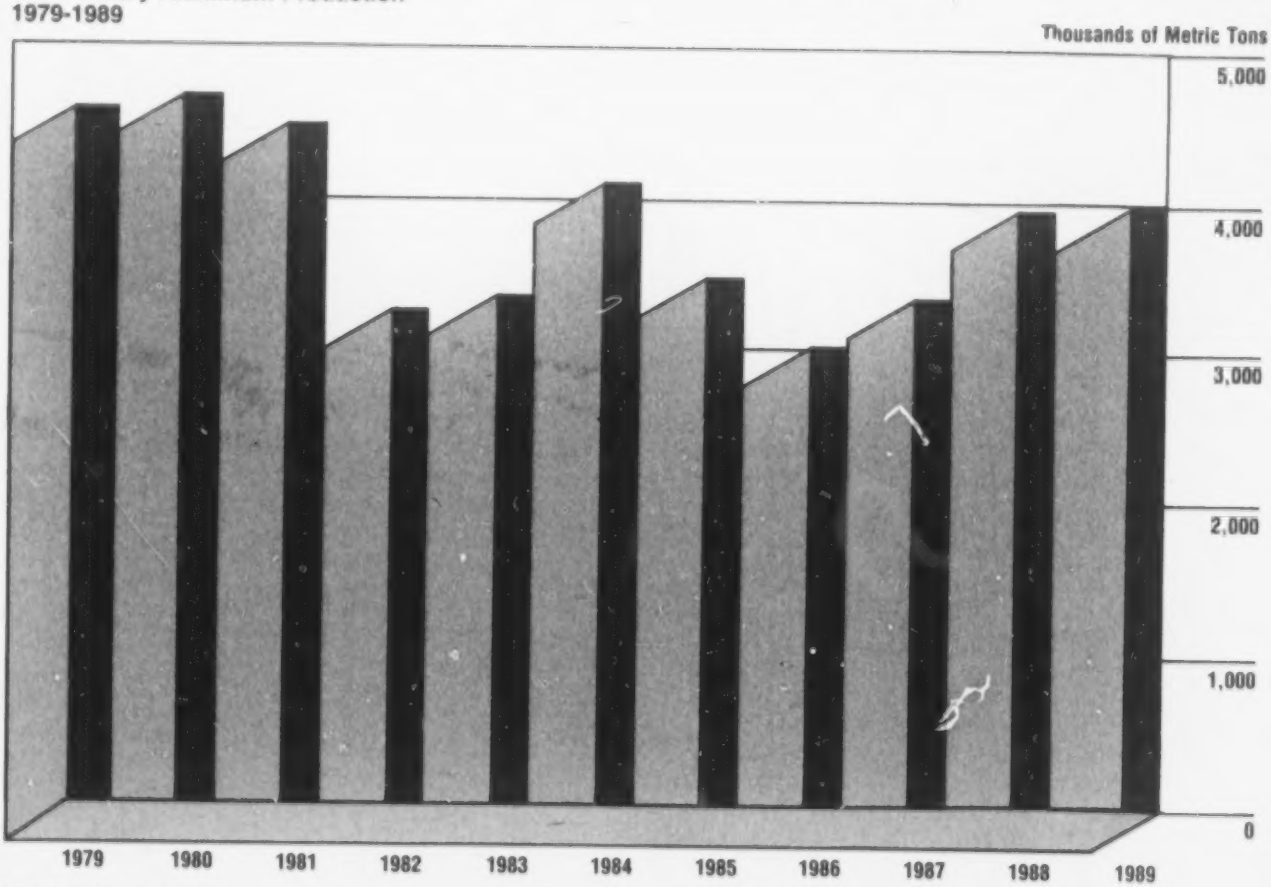
Year*	Thousands of Metric Tons
1979	4,556.9
1980	4,653.6
1981	4,488.7
1982	3,273.7
1983	3,353.3
1984	4,099.1
1985	3,499.7
1986	3,038.7
1987	3,346.9
1988	3,944.5
1989	4,030.2

Conversion Factor:
One metric ton = 2,204.6 pounds

Source: The Aluminum Association

** Prior to 1979, consult the Aluminum Statistical Review - Historical Supplement*

U.S. Primary Aluminum Production 1979-1989



SOURCE: the Aluminum Association

U.S. Primary Aluminum Capacity

CAPACITY UP 4.7 PERCENT
Total annual primary aluminum installed capacity as of December 31, 1989 was 4,087,100 metric tons.

The percentage distribution of U.S. primary capacity by company at year-end 1989 was: Alcoa, 31.4%; Alumax, 14.7%; Reynolds, 11.0%; Kaiser, 6.7%; Ormet, 6.0%; Noranda, 5.0%; Columbia Aluminum, 4.1%; Ravenswood, 4.1%; Alcan, 4.0%; Columbia Falls, 4.0%; Vanalco, 2.8%; National Aluminum, 2.3%; Northwest Aluminum, 2.0%; Southwire, 1.9%.

DESCRIPTION:

There were fourteen domestic primary producer companies as of December 31, 1989. They were Alcan Aluminum Corp., Aluminum Company of America, Alumax, Inc., Columbia Falls Aluminum, Columbia Aluminum Corp., Kaiser Aluminum & Chemical Corporation, National Aluminum Company (54.5% interest in National-Southwire), Noranda Aluminum Incorporated, Northwest Aluminum, Ormet Corp., Ravenswood Aluminum Corp., Reynolds Metals Company, Southwire Company (45.5% interest in National Southwire) and Vanalco, Inc.

U.S. Primary Aluminum Capacity [1]
1979-1989

Thousands of Metric Tons

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Aluminum Company of America	1,285.0	1,155.0	1,155.0	1,095.0	1,430.0	1,429.7	1,429.7	1,429.7	1,564.9	1,564.9	1,542.2
Alumax, Inc. [3]	600.0	600.0	600.0	600.0	599.0	595.1	595.1	385.6	377.1	377.1	198.4
Reynolds	448.0	448.0	422.8	422.8	422.8	781.1	884.5	884.5	884.5	884.5	884.5
Kaiser	273.1	383.8	383.8	526.2	526.2	526.2	656.8	656.8	656.8	656.8	656.8
Ormet Corp. [6]	244.9	244.9	244.9	244.9	-	-	-	-	-	-	-
ARCO Aluminum [2][5]	-	-	-	-	-	326.6	326.6	326.6	326.6	326.6	326.6
Consolidated	-	-	-	-	227.2	292.3	294.1	326.8	319.3	319.3	319.3
Howmet [3]	-	-	-	-	-	-	-	207.0	198.4	198.4	198.4
Noranda	204.1	204.1	204.1	204.1	204.1	204.1	204.1	204.1	127.0	127.0	127.0
Revere	-	-	-	-	184.7	184.9	184.9	184.9	184.3	184.3	184.3
Commonwealth [4]	-	-	-	167.8	167.8	-	-	-	-	-	-
Columbia Aluminum [7]	167.8	167.8	167.8	-	-	-	-	-	-	-	-
Ravenswood Aluminum [9]	166.0	-	-	-	-	-	-	-	-	-	-
Alcan Aluminum Corp. [5]	163.3	163.3	163.3	163.3	163.3	-	-	-	-	-	-
Columbia Falls	163.3	163.3	163.3	163.3	163.3	-	-	-	-	-	-
Vanalco	115.0	115.0	115.0	-	-	-	-	-	-	-	-
National Aluminum	95.4	95.4	95.4	95.4	95.4	93.9	86.2	81.6	81.6	81.6	81.6
Northwest Aluminum [8]	81.6	81.6	81.6	81.6	-	-	-	-	-	-	-
Southwire	79.6	79.6	79.6	79.6	79.6	78.5	86.2	81.6	81.6	81.6	81.6
Martin Marietta	-	-	-	-	81.6	249.5	249.5	249.5	190.5	190.5	190.5
Total	4,087.1	3,901.8	3,876.6	3,844.0	4,345.1	4,761.9	4,997.7	5,018.8	4,992.8	4,992.8	4,791.4

(1) Capacities shown are as reported as of December 31. They include nominal ownership of plants owned by more than one company.
(2) Formally the Anaconda Company, Aluminum Division.
(3) Alumax aquired Howmet in 1983.
(4) Commonwealth aquired 67% of Martin Marietta in 1985.
(5) Alcan and Columbia Falls aquired 50% each of ARCO Aluminum in 1985.
(6) Formally included with Consolidated and Revere.
(7) Formally Commonwealth's Goldendale plant.
(8) Formally Martin Marietta's The Dalles plant.
(9) Formally included with Kaiser Aluminum & Chemical Corp.

Note: Prior to 1979, consult the Aluminum Statistical Review - Historical Supplement.

SOURCE: The Aluminum Association
CONVERSION FACTOR: One metric ton = 2,204.6 pounds

Number of Plants in the U.S.

Number of Plants in the U.S.

Selected Years

Product	1985	1982	1977
Primary Ingot	30	32	32
Secondary Ingot	69	76	89
Sheet & Plate	44	68	49
Foil	26	27	27
Rod & Bar, Rolled and Continuous Cast	18	22	31
Wire, Bare, Conductor & Nonconductor	61	69	125
ACSR and Aluminum Cable, Bare	16	16	59
Wire & Cable, Insulated or Covered	43	43	90
Extruded Products	217	226	222
Drawn Tube	19	19	22
Welded Tube	16	18	32
Powder	19	17	18
Forgings	48	44	74
Impacts	13	16	29

na - Not available
Source: 1977 - U.S. Department of Commerce
1982 and 1985 - The Aluminum Association

The data presented here are based on a survey conducted by the Aluminum Association in 1985. Previous years are based on unofficial directories prepared by the U.S. Department of Commerce, Bureau of Industrial Economics.

The figures shown for each product selected years represent the number of plants-not companies, which in many instances operate more than one plant. No totals are shown since some plants produce more than one product. Data includes captive plants (plants producing only for company's own use).

Five outline maps of the United States indicating the geographic distribution of aluminum plants by various product groups in 1985 are presented on pages 27-29.

For a detailed listing, contact the Aluminum Association for a copy of the U.S. Aluminum Industry Plant Directory (August, 1985).

★ *Primary*
■ *Secondary*

U.S. Plants — cont.

● *Foil*
★ *Sheet and Plate*

● *Bare Wire*
★ *Rolled and Continuous Cast Rod and Bar*
■ *ACSR and Cable and or Insulated or Covered Wire and Cable*

★ *Extrusions*

■ *Forgings and or Impacts*
● *Powder and Paste*
★ *Drawn and or Welded Tube*

Aluminum Scrap Consumption and Recovery

SCRAP CONSUMPTION DOWN 7.4 PERCENT

According to preliminary data from the Bureau of Mines, total domestic industry scrap consumption on a gross weight basis, decreased 7.4 percent to a 1989 level of 2,174,000 metric tons from the 1988 volume of 2,348,000 metric tons.

Secondary recovery totaled 2,044,000 metric tons with new scrap accounting for 51 percent and old scrap for 49 percent.

Old scrap recovery at 1,001,000 metric tons was down 4.2 percent from 1988. Reclamation from aluminum cans increased to an estimated 765,700 metric tons, up 12.2 percent from 1988 accounting for 60.8% of can shipments.

DESCRIPTION:

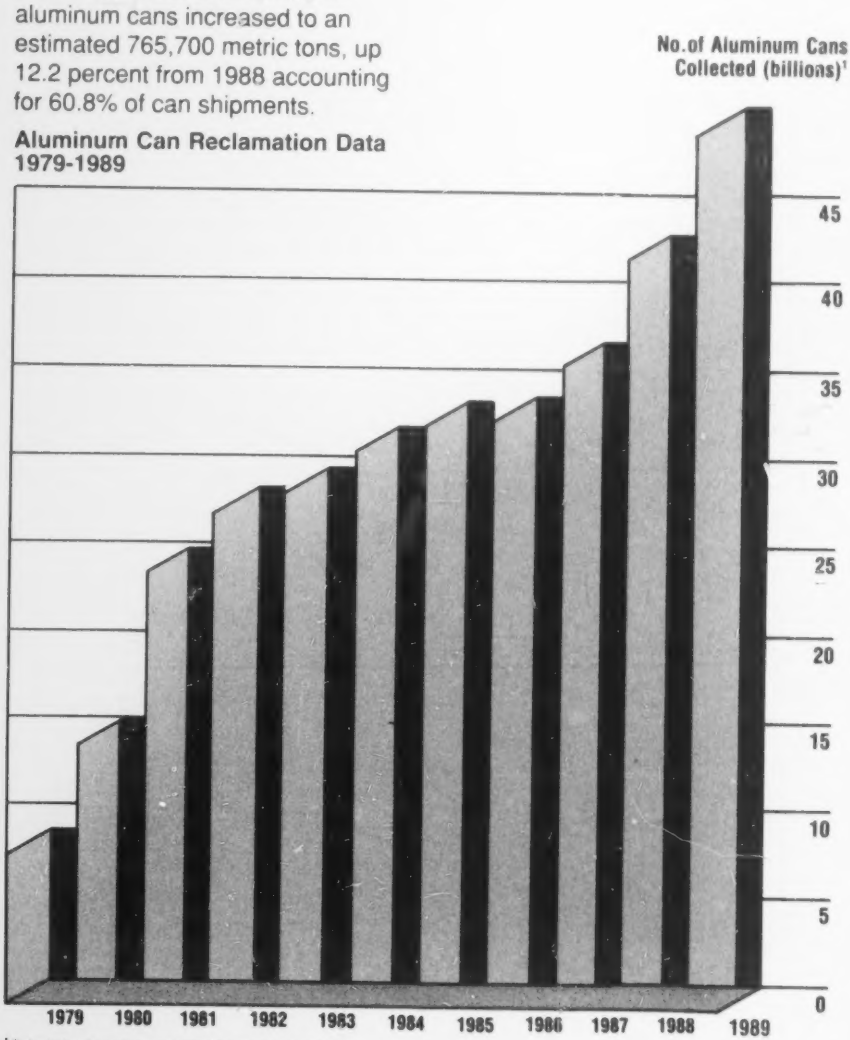
Recovery of aluminum from scrap, an important source of supply, is shown on pages 30 and 31. Two sets of scrap data are tabulated. The scrap consumption figures are on a gross weight basis as reported by plants consuming scrap. The aluminum recovery figures are on a recovered metal basis, that is the content of aluminum base alloy recovered from gross weight consumed. The figures in this table are consistent with domestic secondary recovery on page 23.

The aluminum recovery data are shown by source, that is by new and old scrap. New scrap, generated by plants making end products, and old scrap recovered from metal that has been used by consumers, are returned to plants making ingot and mill products and thus add to the total metal supply.

Through 1954, data on scrap consumption and recovery are based on complete reporting. Beginning in 1955, reported figures are expanded to industry totals by the Bureau of Mines to allow for a number of firms who do not report. In 1961, sweated pig consumption data were improved and included in old scrap.

Recovery of new scrap and old scrap over the past ten years has been about 26 percent of total supply (27.5 percent in 1989). However, this figure does not include "run-around" scrap consumed by the generating companies.

Aluminum Can Reclamation Data 1979-1989



[1]Calculation based on an Association can weight survey.
*preliminary

Aluminum Can Reclamation 1979-1989

Year	Pounds of Aluminum Collected (millions)	No. of Aluminum Cans Collected (billions) [2]	Percent of Aluminum Cans Collected [3]
1979	360 [1]	8.5	25.7
1980	609 [1]	14.8	37.3
1981	1,017 [1]	24.9	53.2
1982	1,124 [1]	28.3	55.5
1983	1,144 [1]	29.4	52.9
1984	1,226 [1]	31.9	52.8
1985	1,245 [4]	33.1	51.0
1986	1,233 [4]	33.3	48.7
1987 [5]	1,335 [4]	36.6	50.5
1988	1,505 [4]	42.5	54.6
1989	1,688 [4]	49.4	60.8

SOURCE:
(1) Net Receipts - U.S. Department of Interior Bureau of Mines
(2) Calculation based on an Aluminum Association can weight survey
(3) Based on Can Manufacturers Institute aluminum beverage can shipment data - lagged on quarter
(4) Estimated by the Aluminum Association Statistical and Market Research Committee
(5) Beginning in 1987, UBC data includes estimate of exported can scrap

Aluminum Scrap Consumption and Recovery 1946-1989

Thousands of Metric Tons

	SCRAP CONSUMPTION	SCRAP CONSUMPTION (Gross Weight Basis) As Reported[5]				RECOVERY[4] (Recovered Metal Basis)		
Year	Total Industry[1]	Total	Secondary Smelters	Primary[2] Producers	Others[3]	Total Industry	From New Scrap	From Old Scrap
1946	312.1	312.1	215.9	90.7	5.4	252.3	170.1	82.1
1947	372.9	372.9	283.1	81.7	8.1	312.8	164.2	148.6
1948	294.4	294.4	197.5	91.1	5.8	260.2	173.4	86.8
1949	180.6	180.6	116.5	59.5	4.5	164.0	123.5	40.5
1950	247.8	247.8	174.2	62.0	11.6	221.1	151.8	69.3
1951	301.5	301.5	210.8	73.0	17.7	265.5	196.0	69.5
1952	315.5	315.5	231.4	70.7	13.3	276.3	211.6	64.7
1953	375.0	375.0	250.6	105.2	19.1	334.4	262.7	71.6
1954	318.0	318.0	216.9	83.0	18.1	284.0	223.7	60.3
1955	387.4	387.4	284.7	78.7	24.0	375.6	285.3	90.3
1956	398.6	398.6	301.0	80.5	17.0	388.3	300.3	88.0
1957	420.0	420.0	312.0	85.3	21.8	403.8	315.3	88.5
1958	340.7	340.7	250.2	70.1	20.4	321.1	249.0	72.1
1959	431.8	431.8	348.8	57.1	25.9	407.3	313.0	94.3
1960	400.5	400.5	321.0	49.3	30.1	397.3	311.1	86.2
1961	451.9	451.9	300.9	40.4	110.5	440.0	298.9	141.1
1962	539.7	539.7	401.1	33.1	105.4	527.9	376.9	151.0
1963	587.4	587.4	447.4	40.7	99.3	593.3	449.1	144.2
1964	646.1	646.1	489.0	53.5	103.7	641.4	494.4	147.0
1965	740.8	740.8	526.0	86.2	128.6	752.1	566.1	186.0
1966	813.1	813.1	579.5	113.8	119.8	805.2	635.3	169.9
1967	800.9	800.9	559.9	111.6	129.4	796.5	638.2	158.3
1968	920.9	920.9	634.4	138.1	148.4	904.5	740.3	164.2
1969	1,006.2	1,006.2	673.2	178.6	154.3	1,043.2	861.8	181.4
1970	882.3	882.3	590.0	139.0	153.3	907.2	728.5	178.7
1971	911.5	911.5	580.5	154.9	176.1	952.6	756.6	196.0
1972	1,045.5	1,045.5	640.9	186.2	218.4	1,021.5	794.7	226.8
1973	1,145.3	1,145.3	668.4	192.8	284.0	1,126.7	886.3	240.4
1974	1,094.1	1,094.1	571.7	216.8	305.6	1,163.0	887.2	275.8
1975	1,117.8	1,117.8	554.8	311.0	252.0	1,121.3	815.6	305.7
1976	1,329.5	1,329.5	688.6	331.3	309.6	1,334.4	963.4	371.0
1977	1,422.7	1,422.7	763.2	386.2	273.3	1,456.0	974.3	481.7
1978	1,466.5	1,466.5	800.8	396.8	268.9	1,517.7	996.1	521.6
1979	1,546.8	1,546.8	836.6	401.2	309.0	1,612.1	1,055.1	557.0
1980	1,536.5	1,536.5	802.2	491.5	242.8	1,576.7	959.8	616.9
1981	2,031.2	2,031.2	1,036.0	663.2	332.0	1,789.9	1,031.5	758.4
1982	1,900.6	1,900.6	880.0	673.1	347.5	1,665.6	883.6	782.0
1983	2,018.9	2,018.9	897.0	774.0	347.9	1,773.0	953.0	820.0
1984	2,010.0	2,010.0	872.0	782.0	356.0	1,760.0	935.0	825.0
1985	1,978.0	1,978.0	923.0	727.0	328.0	1,762.0	912.0	850.0
1986	1,986.0	1,986.0	883.0	781.0	322.0	1,773.0	989.0	784.0
1987	2,204.0	2,204.0	878.0	964.0	362.0	1,986.0	1,134.0	852.0
1988	2,348.0	2,348.0	950.0	1,025.0	373.0	2,122.0	1,077.0	1,045.0
1989p	2,174.0	2,174.0	805.0	1,027.5	341.5	2,044.0	1,043.0	1,001.0

r-revised
p-preliminary

(1) As reported, 1946-54: estimates expanded from reported, 1955 to present
(2) For 1951-53 includes small amounts reported consumed by nonintegrated fabricators
(3) Most consumption of sweated pig apparently not reported by 'others' prior to 1961
(4) Recovery from sweated pig included in new scrap 1946-1960; old scrap 1961 to present
(5) Figures 1981 to present represent estimated full coverage

SOURCE: U.S. Department of Interior, Bureau of Mines and U.S. Department of Commerce, Bureau of Economic Analysis

Conversion factor: One metric ton = 2,204.6 pounds

U.S. Aluminum Foreign Trade Statistics

IMPORTS ACCOUNT FOR 18.4 PERCENT OF U.S SUPPLY
For the year 1989 imports of aluminum ingot and mill products accounted for 18.4 percent of total aluminum supply in the United States. Exports comprised 14.2 percent of total industry shipments. These facts illustrate the major role of foreign trade in the U.S. aluminum industry.

1989 imports of aluminum ingot dropped 9.9 percent to 2,041 million pounds as compared with 2,265 million pounds in 1988.Imports of semifabricated products also decreased, falling to 942 million pounds, down 2.9 percent from 1988.

Exports of aluminum ingot rose in 1989 to 1,311 million pounds, a 48.6 percent increase from a 1988 level of 882 million pounds. Exports of semifabricated products increased to 1,096 million pounds, 28.7 percent rise from 1988.

Exports of aluminum scrap showed a 20.5 percent increase to a 1,292 million pound level.

In 1989 the U.S. was a net exporter of aluminum by an amount of 225 million pounds.

The product composition of United States imports and exports for the years 1979-1989 is graphically presented on pages 34 and 35. The data for total imports and exports as well as the detail of aluminum product imports and exports for 1989 and the preceding 10 years are tabulated on pages 36 and 37. The total imports include dross and skimmings and the gross weight of scrap. In the table on United States Supply (page 23) dross and skimmings are excluded, and the recovered weight of imported scrap is used. It is counted as part of domestic secondary recovery for the years 1972-1989 and shown as a separate supply component for years prior to 1972.

The detail of 1989 aluminum imports by product and country of origin is presented on pages 38 and 39. Similarly, the exports on a product basis by country of destination are detailed on pages 40 and 41.

For information on years prior to 1979 see the Aluminum Statistical Review-Historical Supplement.

Bauxite, the ore from which aluminum is made, has been found on every continent except Antarctica, spread in a wide belt through the tropical and sub-tropical areas of the earth.

U.S. Imports

IMPORTS FALL 5.9 PERCENT
Aluminum imports totaled 3,473 million pounds during 1989, down 5.9 percent from 1988. Ingot, which accounted for 58.8 percent of all aluminum imported during 1989 decreased 9.9 percent to 2,041 million pounds. Canada topped the list with imports of 2,492 million pounds, 71.7 percent of total imports.

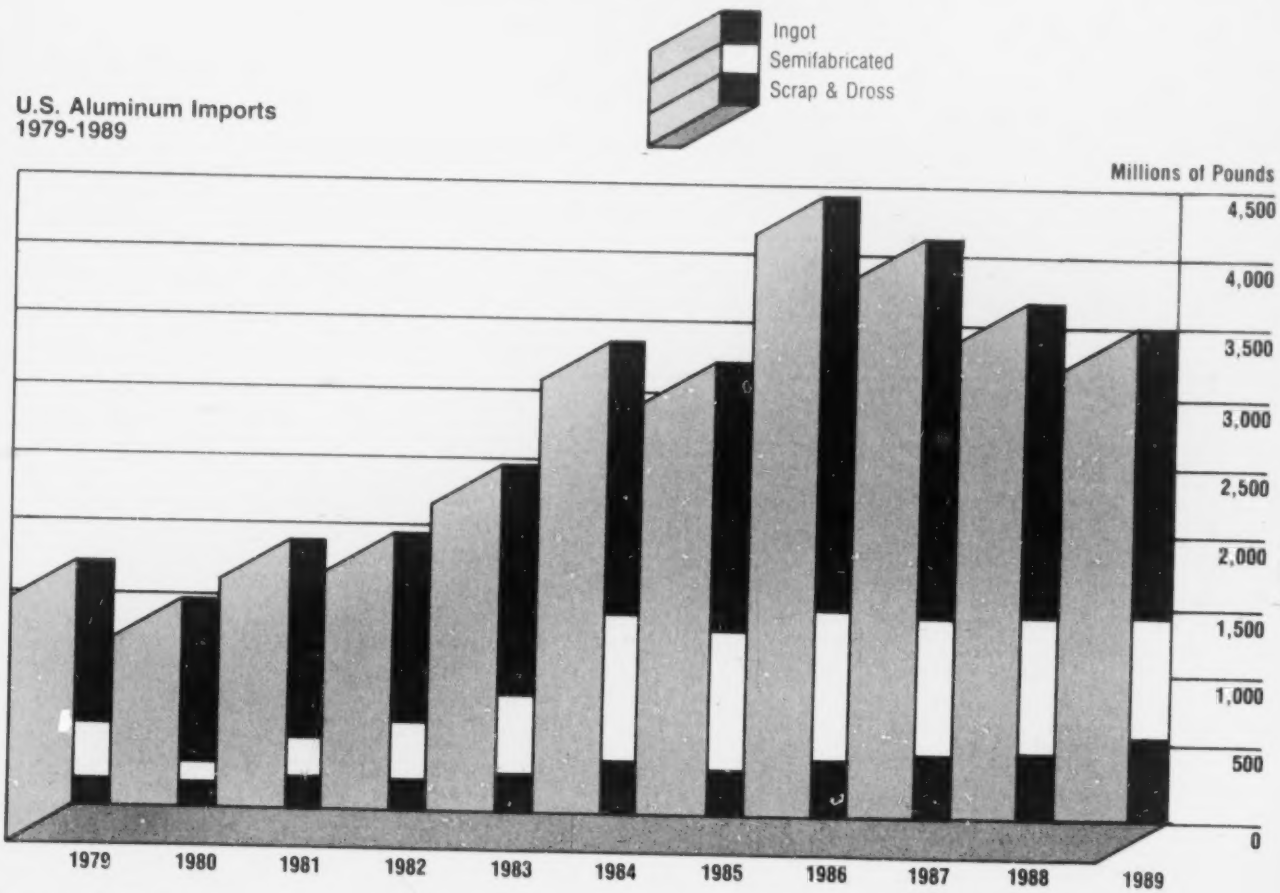
Imports of semifabricated aluminum products also decreased, falling 2.9 percent to 942 million pounds. Canada led the list of over 92 countries exporting semifabricated products to the U.S. with a total of 376 million pounds or 39.9 percent of total semifabricated products imports. Aluminum sheet imports, at 682 million pounds were up 1.1 percent. Canada and Belgium were the largest sources at 49.0 percent and 8.0 percent of the total respectively.

1989 scrap imports increased 7.3 percent to 491 million pounds from a 1988 level of 457 million pounds.

Penetration of the U.S. market by imported semifabricated products continued strong at 4.1 percent.

The graph below illustrates the trend of U.S. aluminum imports in the years 1979-1989. In addition to showing the imports of ingot, scrap, and dross and skimmings, the upper half of the table on pages 36 and 37 shows in detail the categories of imports of semifabricated products for the years 1979-1989. Imports of aluminum by country for the year 1989 are shown on pages 38 and 39.

U.S. Aluminum Imports 1979-1989



Source: the Aluminum Association

U.S. Exports

U.S. EXPORTS INCREASE 31.8 PERCENT

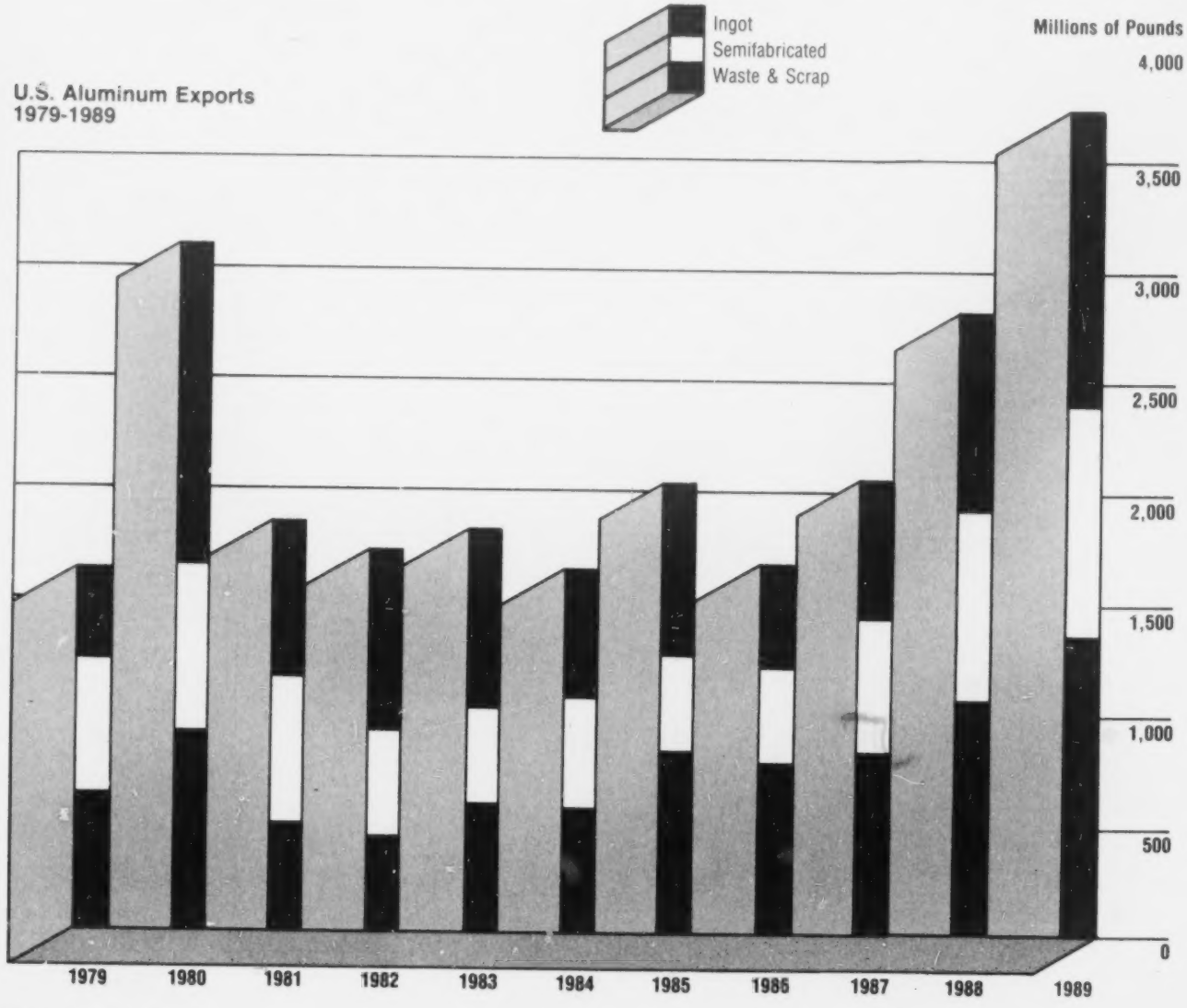
Total aluminum exports during 1989 were 3,699 million pounds, up 31.8 percent from 1988. Ingot exports rose 48.6 percent to 1,311 million pounds from a 1988 level of 882 million pounds. Semifabricated exports of 1,096 million pounds increased 28.7 percent from 852 million pounds in 1988. Exports of scrap rose from 1,073 million pounds in 1988 to 1,292 million pounds in 1989, about 20.5 percent.

Of the 114 countries receiving aluminum from the U.S. in 1989, Japan received 48.2 percent or 1,784 million pounds, (980 ingot, 744 scrap and 60 semifabricated). Exports to Canada were 781 million pounds of which 635 million pounds were semifabricated products and exports to Taiwan totaled 266 million pounds.

DESCRIPTION:

The graph below illustrates the trend of U.S. aluminum exports in the years 1979-1989. In addition to showing the exports of ingot and scrap, the lower portion of the table on pages 36 and 37 shows the detail of exports of semifabricated products for the years 1979-1989. Exports of aluminum by country for 1989 are shown on pages 40 and 41.

U.S. Aluminum Exports 1979-1989



Source: the Aluminum Association

United States Imports and Exports

United States Imports & Exports 1979-1989

Thousands of Pounds

PRODUCT	1989	1988	1987	1986	1985
Total Imports	3,473,349	3,691,740	4,171,462	4,426,199	3,223,576
Total Ingot & Semifabricated	2,982,768	3,234,635	3,750,942	4,062,513	2,935,770
Ingot	2,040,607	2,264,691	2,745,882	2,973,633	1,915,099
Semifabricated, total	942,161	969,944	1,005,060	1,088,880	1,020,671
Sheet & Plate, total	760,871	732,709	765,311	836,049	770,093
Circles & disks	33,152	31,733	35,424	32,059	25,936
Other	727,719	700,976	729,887	803,990	744,157
Foil, total	53,929	72,881	64,255	60,285	57,176
Over .00035 in.	31,771	42,063	39,491	33,218	37,733
Not over .00035 in.	19,616	27,832	21,853	24,113	17,891
Capacitor	2,542	2,985	2,910	2,954	1,552
Rod & bar	46,942	98,398	117,314	128,922	128,703
Wire, bare	46,755	17,489	11,545	14,487	21,105
ACSR & bare cable	1,836	7,998	5,594	4,930	4,472
Angles & shapes	12,688	20,185	18,687	18,459	16,312
Pipe & tube	4,031	8,465	10,270	13,452	7,381
Powder & paste	10,713	11,819	12,084	12,296	15,430
Castings	4,181	na	na	na	na
Forgings	214	na	na	na	na
Scrap & Dross	490,581	457,104	420,521	363,686	287,806
Total Exports	3,698,732	2,806,348	2,067,956	1,676,082	2,030,140
Total Ingot & Semifabricated	2,406,414	1,733,545	1,255,570	910,790	1,204,187
Ingot	1,310,618	881,976	619,859	462,068	765,648
Semifabricated, total	1,095,796	851,569	635,712	448,722	438,539
Sheet & Plate, total	834,028	685,398	502,877	359,818	329,311
Foil, total	77,538	34,421	32,003	13,256	12,031
Rod & bar	39,939	24,447	23,005	21,262	22,853
Wire, bare	15,936	10,731	10,141	6,755	8,932
ACSR & bare cable	12,807	4,471	1,808	1,139	5,704
Angles & shapes	43,770	25,811	28,406	15,541	11,686
Pipe & tube	16,992	17,016	14,783	9,736	10,389
Powder & paste	9,632	11,878	7,471	6,000	6,278
Castings	30,558	29,787	7,959	9,780	20,190
Forgings	14,596	7,610	7,258	5,435	7,166
Scrap & Dross	1,292,319	1,072,803	812,385	765,292	825,953
Net Imports *	-225,383	885,392	2,103,506	2,750,117	1,193,436

Detail may not add to totals due to rounding
** - Imports less exports*
na - Not available

Note: Prior to 1979, consult the Aluminum Statistical Review - Historical Supplement

SOURCE: U.S. Department of Commerce, Bureau of the Census

1984	1983	1982	1981	1980	1979
3,353,255	2,465,217	1,966,647	1,894,847	1,453,529	1,714,794
3,034,098	2,255,700	1,814,325	1,725,220	1,329,404	1,567,857
1,944,381	1,637,353	1,358,751	1,421,311	1,161,328	1,141,517
1,089,717	618,347	455,574	303,909	168,076	426,339
884,498	536,059	414,819	247,139	126,117	357,285
29,144	19,131	16,404	11,673	7,757	21,529
855,354	516,929	398,415	235,466	118,360	355,756
54,005	29,238	19,328	13,430	9,099	17,925
27,045	12,345	8,749	4,791	3,532	6,020
23,631	15,226	8,708	6,608	4,116	10,036
3,329	1,666	1,870	2,031	1,452	1,870
82,269	27,435	10,057	34,238	16,343	37,959
26,966	6,444	3,202	3,220	2,256	6,902
5,337	2,021	101	8	144	146
12,690	3,478	1,272	1,320	1,206	1,664
8,981	3,170	1,279	1,167	682	1,098
14,971	10,503	5,515	3,388	12,228	3,361
na	na	na	na	na	na
na	na	na	na	na	na
319,156	209,518	152,322	169,627	124,125	146,937
1,646,169	1,819,397	1,723,285	1,852,324	3,082,645	1,637,086
1,076,484	1,240,875	1,294,687	1,370,001	2,193,283	1,022,924
572,316	795,216	802,348	688,321	1,429,813	401,300
504,169	445,659	492,339	681,680	763,470	621,625
402,992	318,667	323,074	411,385	425,792	404,509
11,917	10,952	12,933	21,338	37,911	20,566
22,133	24,374	51,980	102,463	136,736	61,510
6,162	9,972	11,791	24,653	57,737	30,129
5,699	35,845	46,953	70,324	29,031	30,600
11,137	10,310	9,298	8,507	25,528	22,402
10,492	9,480	13,157	15,216	16,500	16,178
8,086	5,075	6,082	6,769	16,047	14,356
21,488	18,199	14,359	17,860	14,992	17,840
4,064	2,785	2,711	3,165	3,195	3,526
569,685	578,522	428,598	482,323	889,363	614,162
1,707,086	645,820	243,362	42,523	-1,629,116	77,708

United States Imports by Product and Country

United States Imports by Product and Country - 1989

Thousands of Pounds

Country	Total	Ingot	Scrap Dross and Skimmings	Semi-fabricated Products	Sheet	Plate	Circles & Discs
TOTAL ALL COUNTRIES	3,473,351	2,040,607	490,581	942,163	681,576	46,143	33,152
NORTH AMERICA	2,491,604	1,741,150	374,865	375,589	333,780	6,218	3,617
Canada	2,491,604	1,741,150	374,865	375,589	333,780	6,218	3,617
LATIN AMERICA	435,491	231,618	81,007	122,867	39,747	3,338	11,735
Argentina	43,889	28,171	-	15,718	3,773	499	198
Bermuda	8,742	-	67	8,676	-	-	-
Brazil	87,837	65,673	2	22,163	6,961	234	2,703
Costa Rica	4,238	-	1	4,237	468	-	-
Jamaica	8,295	220	4,133	3,941	-	-	3,188
Mexico	60,371	1,702	45,852	12,818	3,297	-	1,963
Panama	8,863	1,060	7,803	-	-	-	-
Venezuela	199,368	133,763	10,466	55,139	25,180	2,604	3,672
Other	13,888	1,028	12,684	176	69	-	11
EUROPEAN COMMUNITY	255,329	2,538	15,297	237,494	160,868	25,654	10,165
Belgium	80,462	167	11,246	69,049	54,614	4,721	8,256
Denmark	179	*	-	179	*	83	-
France	59,868	214	836	58,818	44,315	10,095	837
Germany, Fed. Rep.	54,017	1,310	1,922	50,785	21,816	2,736	104
Greece	3,052	-	-	3,052	1,302	1,108	336
Ireland	143	-	-	143	-	-	-
Italy	7,467	46	56	7,364	3,709	687	155
Netherlands	11,275	5	45	11,225	11,065	17	22
Portugal	*	-	-	*	-	-	-
Spain	6,270	-	-	6,270	4,376	1,240	445
United Kingdom	32,596	795	1,192	30,609	19,671	4,965	10
OTHER EUROPE	88,457	478	14,985	72,993	46,090	7,943	2,851
Yugoslavia	30,865	41	-	30,824	18,890	4,406	535
U.S.S.R.	13,107	220	12,887	-	-	-	-
Hungary	12,980	-	-	12,980	9,491	298	1,629
Turkey	11,929	85	-	11,844	5,164	2,919	-
Norway	5,633	43	-	5,590	5,475	54	-
Sweden	5,487	-	-	5,487	3,678	147	-
Other	8,456	89	2,099	6,268	3,392	120	687
EAST ASIA	77,563	2,799	2,249	72,516	51,418	2,446	4,398
China, Peoples Rep.	1,387	694	-	693	8	-	-
Hong Kong	5,934	22	271	5,640	1,063	141	4,397
Japan	65,797	2,075	1,704	62,018	50,048	2,281	-
Korean Republic	776	-	210	565	117	13	-
Taiwan	3,670	7	64	3,599	182	12	*
SOUTH ASIA	66,277	26,293	581	39,403	34,280	323	86
Bahrain	36,065	-	-	36,065	32,324	260	86
Israel	2,557	-	44	2,514	1,762	63	-
United Arab Imirates	26,829	26,292	537	-	-	-	-
Other	826	1	-	825	194	-	-
OCEANIA	16,375	12,707	1,571	2,098	1,611	173	239
Australia	15,329	12,707	1,468	1,155	1,009	41	34
New Zealand	836	-	-	836	496	133	205
Other	210	-	103	107	106	-	-
AFRICA	42,255	23,024	27	19,203	13,783	47	60
British Indian Ocean	613	-	-	613	-	-	-
Ghana	20,288	19,674	-	614	611	-	3
South Africa, Rep.	20,980	3,306	-	17,674	12,870	47	57
Other	374	44	27	303	302	-	-

(*) Indicates less than 500 pounds. Detail may not add due to rounding
Source: U.S. Department of Commerce, Bureau of the Census

Total Foil	Rod and Bar	Wire	ACSR and Bare Cable	Angles, Shapes & Sections	Pipes Tubes & Fittings	Powder and Paste	Castings	Forgings
53,929	46,942	46,755	1,836	12,690	4,031	10,713	4,181	214
4,777	7,146	16,933	-	753	851	880	629	4
4,777	7,146	16,933	-	753	851	880	629	4
6,147	26,278	27,236	406	6,762	34	727	456	-
106	10,364	376	-	377	24	-	-	-
-	8,676	-	-	-	-	-	-	-
2,122	-	8,936	-	911	5	280	10	-
3,762	-	-	-	-	-	7	-	-
-	754	-	-	-	-	-	-	-
9	5,842	88	-	740	2	440	436	-
-	-	-	-	-	-	-	-	-
147	566	17,836	400	4,734	-	-	-	-
-	76	-	6	-	4	-	11	-
27,637	5,908	766	84	682	1,313	3,893	371	152
72	1,312	-	-	72	-	2	-	-
3	79	-	1	10	4	-	-	-
2,546	515	79	2	15	108	255	4	48
22,696	44	18	80	447	737	1,979	54	72
252	-	-	-	*	54	-	-	-
-	11	-	-	-	*	131	-	-
1,863	418	2	-	89	4	431	6	*
37	5	-	*	5	20	47	6	-
-	-	-	-	-	-	-	*	-
-	99	3	-	1	14	1	91	-
169	3,425	664	1	44	373	1,047	209	32
6,506	5,892	660	1	3	621	2,356	12	58
863	5,846	213	-	-	33	37	-	-
-	-	-	-	-	-	-	-	-
238	36	-	-	-	552	736	-	-
3,314	-	447	-	-	-	-	-	-
-	1	-	-	*	*	-	4	55
209	9	-	*	1	17	1,425	2	*
1,883	-	-	1	2	19	157	5	2
6,534	261	1,066	758	1,535	1,128	478	2,493	*
13	239	9	-	-	-	282	141	-
1	-	*	*	-	9	-	29	-
6,463	6	1,056	681	422	872	175	14	*
8	-	1	76	1	25	-	324	-
50	16	-	1	1,112	222	20	1,984	-
473	1,170	88	3	405	-	2,377	199	*
-	1,102	-	-	-	-	2,293	-	-
10	68	88	3	405	-	-	116	-
-	-	-	-	-	-	-	-	-
463	-	*	-	-	-	84	83	*
56	*	6	8	-	1	2	1	-
56	*	6	6	-	1	2	*	-
-	-	-	2	-	-	-	-	-
-	-	*	-	-	-	-	1	-
1,799	287	-	576	2,550	81	-	20	-
-	37	-	576	-	-	-	-	-
-	-	-	-	-	-	-	-	-
1,799	249	-	-	2,550	81	-	20	-
-	-	-	-	-	-	-	1	-

United States Exports by Product and Country

United States Exports by Product and Country - 1989

Thousands of Pounds

Country	Total	Ingot	Waste & Scrap	Semi-fabricated Products	Sheet	Plate	Circles & Discs
TOTAL ALL COUNTRIES	3,698,732	1,310,618	1,292,319	1,095,796	701,677	128,174	4,177
NORTH AMERICA	781,374	64,078	82,014	635,282	486,776	23,948	1,069
Canada	781,374	64,078	82,014	635,282	486,776	23,948	1,069
LATIN AMERICA	267,365	49,151	71,922	146,292	76,172	27,964	430
Bahamas	3,265	1	2,817	448	209	6	-
Brazil	15,857	281	8,030	7,546	3,923	825	*
Colombia	4,434	967	69	3,398	168	3,058	4
Dominican Republic	3,403	771	128	2,504	561	54	-
El Salvador	2,821	2,260	-	561	85	11	-
Jamaica	5,258	56	604	4,599	1,219	1,918	-
Mexico	204,411	42,635	59,645	102,131	62,357	11,352	196
Panama	3,259	867	76	2,315	222	1,912	*
Trinidad	1,929	638	65	1,226	260	42	-
Venezuela	14,854	1	100	14,753	6,017	8,084	185
Other	7,873	673	389	6,812	1,150	701	45
EUROPEAN COMMUNITY	253,267	46,595	138,003	68,668	23,442	19,992	111
Belgium	20,414	6,492	10,694	3,228	448	1,008	17
Denmark	431	26	-	405	67	142	3
France	45,683	585	36,425	8,673	1,800	3,917	3
Germany, Fed. Rep.	36,305	1,726	21,317	13,263	6,839	3,310	16
Greece	1,026	-	814	213	126	6	-
Ireland	1,490	5	551	935	482	30	-
Italy	43,268	381	28,660	14,227	4,074	2,478	19
Netherlands	63,727	32,253	25,359	6,115	1,766	3,729	23
Portugal	46	*	42	3	-	-	-
Spain	5,546	397	2,849	2,300	403	1,339	*
United Kingdom	35,328	4,729	11,292	19,307	7,438	4,034	30
OTHER EUROPE	56,424	5,506	44,718	6,200	2,255	1,944	438
Austria	741	17	-	724	5	6	438
Finland	43,787	5	43,331	451	70	78	-
Norway	1,055	64	747	243	64	79	-
Sweden	2,972	253	497	2,222	1,193	819	-
Switzerland	6,223	5,110	4	1,108	778	81	-
Turkey	1,161	40	46	1,075	11	878	*
Other	484	16	93	376	134	3	-
EAST ASIA	2,236,569	1,112,398	946,909	177,262	100,758	24,572	769
China, Peoples Rep.	23,236	11,148	3,532	8,556	7,612	173	-
Hong Kong	34,949	6,535	2,535	25,879	22,189	440	-
Japan	1,783,506	908,241	743,538	59,628	29,929	7,282	671
Korea, Republic of	128,667	55,144	30,827	42,696	20,296	3,786	81
Taiwan, R.O.C.	266,211	59,330	166,377	40,504	20,732	12,892	17
SOUTH ASIA	96,802	31,245	6,414	59,143	11,553	29,310	1,314
Indonesia	4,360	3,688	-	672	221	58	-
Israel	8,134	38	126	7,970	1,576	1,265	1
Philippines, Repub.	5,148	3,012	1,524	611	241	-	-
Saudi Arabia	33,498	9	-	33,489	3,481	24,308	2
Singapore	17,609	12,272	998	4,339	988	312	1,301
Thailand	15,318	11,059	920	3,339	2,355	7	-
Other	12,734	1,167	2,846	8,722	2,691	3,361	10
OCEANIA	3,938	1,316	416	2,207	594	302	32
New Zealand	1,973	1,185	297	491	240	76	-
Australia	1,886	130	119	1,636	302	225	32
Other	80	-	-	80	52	1	-
AFRICA	2,995	330	1,923	741	126	141	14
Ghana	156	15	-	141	24	7	-
Mauritania	216	-	216	-	-	-	-
South Africa, Repub.	1,948	2	1,665	281	36	56	-
Zimbabwe	338	222	-	115	47	-	-
Other	337	91	43	204	19	78	14

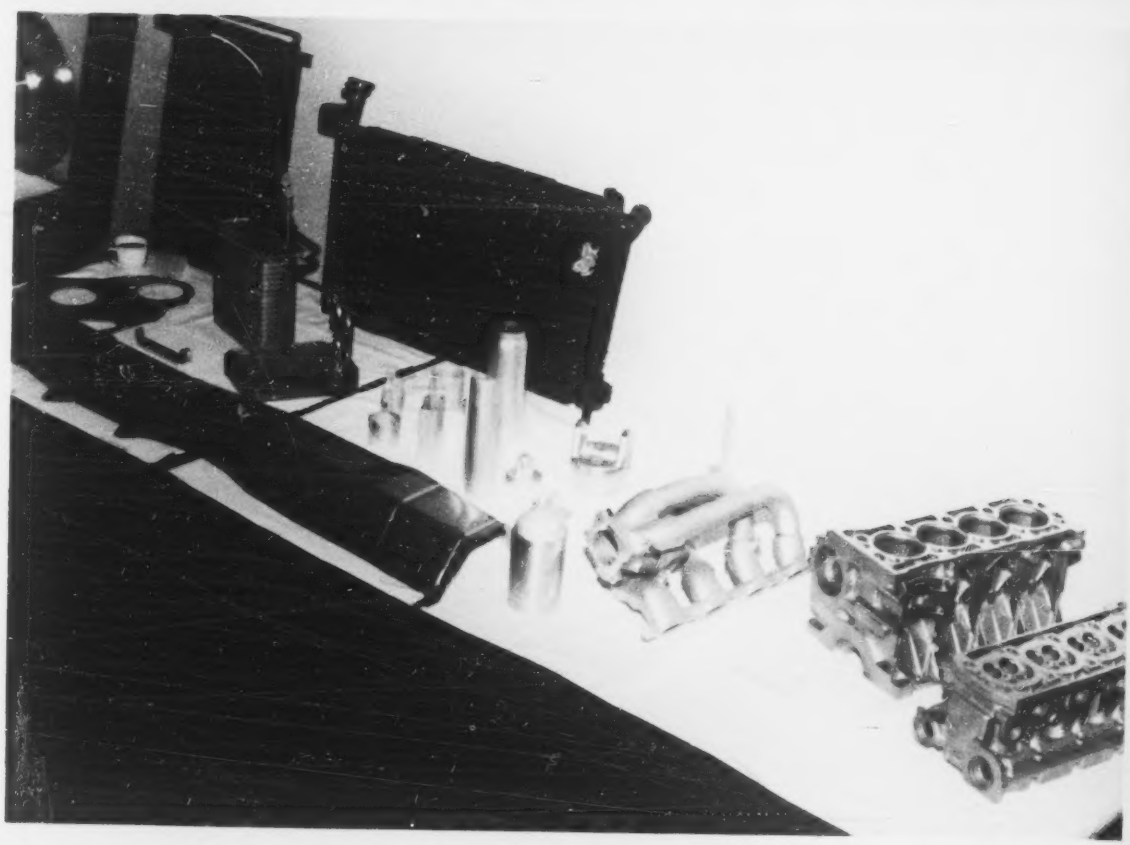
(*) Less than 500 pounds
Detail may not add due to rounding

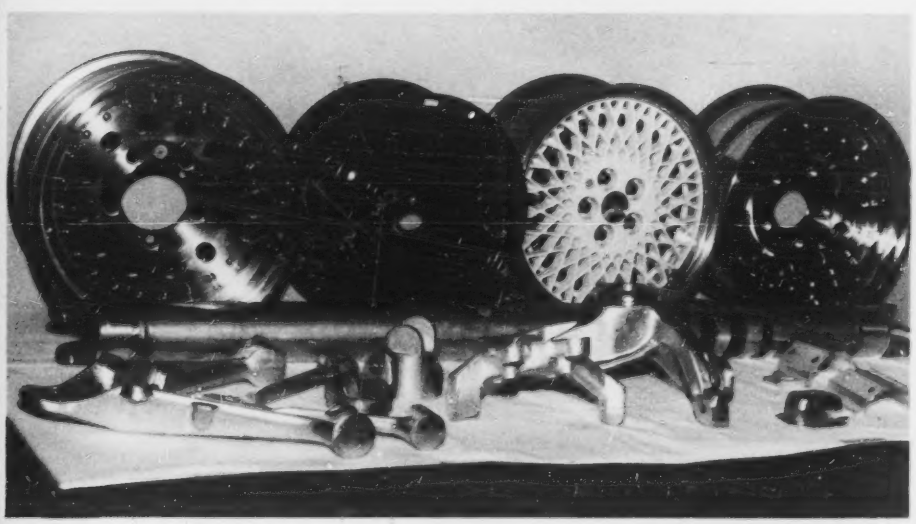
Source: U.S. Department of Commerce, Bureau of the Census

Foil	Rod and Bar	Wire	ACSR & Bare Cable	Angles, Shapes & Sections	Pipes & Tubes	Powder & Paste	Castings	Forgings
77,538	39,939	15,936	12,807	43,770	16,992	9,632	30,558	14,596
54,415	9,380	5,848	525	9,567	7,603	2,635	26,588	6,929
54,415	9,380	5,848	525	9,567	7,603	2,635	26,588	6,929
6,885	5,647	5,451	5,099	9,755	5,160	2,401	1,147	181
-	*	39	62	-	57	39	-	34
1,958	55	28	*	250	163	219	75	50
9	5	20	-	1	73	49	10	-
282	-	177	25	1,176	221	3	-	6
380	2	4	31	-	44	5	-	-
211	888	60	46	59	90	1	106	-
2,726	4,560	4,478	4,625	5,388	3,913	1,564	907	66
94	4	59	-	-	21	2	-	1
410	-	19	-	415	80	-	-	-
101	6	72	19	87	32	148	*	-
715	128	494	291	2,379	467	372	47	24
1,485	9,662	2,612	58	3,126	1,789	2,390	1,387	2,612
422	536	287	-	30	28	44	279	130
11	1	10	5	5	7	-	131	24
285	301	300	27	287	26	927	56	744
229	1,314	685	6	25	79	194	175	392
7	1	*	-	42	6	15	9	-
44	-	27	-	-	85	8	55	190
64	5,871	730	9	372	44	378	22	167
167	133	63	-	40	61	13	53	68
-	3	*	-	-	-	-	-	-
40	-	3	-	95	20	95	46	260
216	1,501	507	12	2,217	1,434	717	563	637
448	123	121	78	327	330	43	60	32
222	-	4	2	3	3	-	41	-
17	-	1	20	237	25	2	1	-
17	-	8	51	8	5	-	8	3
19	41	36	*	38	43	1	6	25
35	7	66	3	23	75	35	3	1
59	13	*	-	2	106	3	1	2
79	61	5	3	15	74	2	-	-
5,317	14,435	853	6,973	18,058	1,311	1,545	401	2,271
86	48	4	-	153	58	325	10	87
862	89	146	1,747	133	67	22	65	120
3,541	13,873	117	9	1,172	139	1,023	221	1,651
365	296	458	46	16,123	654	175	11	405
463	129	128	5,171	478	392	-	95	8
8,834	550	547	15	2,877	442	243	942	2,515
253	11	37	6	60	8	9	6	4
113	270	229	-	1,687	109	47	238	2,437
149	6	50	4	49	46	54	10	2
5,334	2	-	4	287	62	5	4	-
461	202	118	-	160	113	51	579	55
402	37	6	-	416	15	15	86	1
2,122	21	108	1	217	90	62	21	18
107	121	416	16	53	273	203	31	56
-	6	9	7	10	88	44	1	10
90	115	407	9	41	178	160	30	46
17	-	-	-	2	7	-	-	*
46	22	88	42	5	83	172	2	-
32	-	63	-	2	11	-	1	-
-	-	-	-	-	-	-	-	-
9	21	25	0	2	14	117	*	-
-	-	*	32	-	-	36	-	-
4	1	-	10	*	53	20	-	-

World Aluminum Statistics

Aluminum continues to play an important part in the automotive industry, with total 1989 shipments of 1.65 billion pounds. Presented here are exhibits from the 1989 Automotive Design and Fabrication





The aluminum industry is international by its very nature. From the extraction of its basic source material at bauxite sites located in a number of countries throughout the world to its fabrication and distribution in every nation on earth, the aluminum industry should be viewed in a world-wide perspective. This section attempts to provide data on two of the key aspects of world aluminum, world primary aluminum production and the apparent per capita consumption of aluminum for selected countries.

World production of primary aluminum in 1989 is estimated to have been 17,980 thousand metric tons, up 2.1 percent from 1988. World primary aluminum production is presented by country for the years 1979-1989 on page 45.

Data on the consumption of aluminum on a per capita basis are presented for 39 countries. These countries represent about three-quarters of the world's production of primary aluminum. The data are presented in a uniform statistical format for the years 1979-1989. The data for supply and consumption show ingot and mill product detail for imports and exports. Midyear population figures are presented as part of the calculation of consumption on a per capita basis for each country.

World aluminum statistical data is presented in metric tons, with one exception: the per capita aluminum consumption summary on page 47 is expressed in pounds per person per year. Individual country data tables show per capita consumption in kilograms.

World Primary Aluminum Production

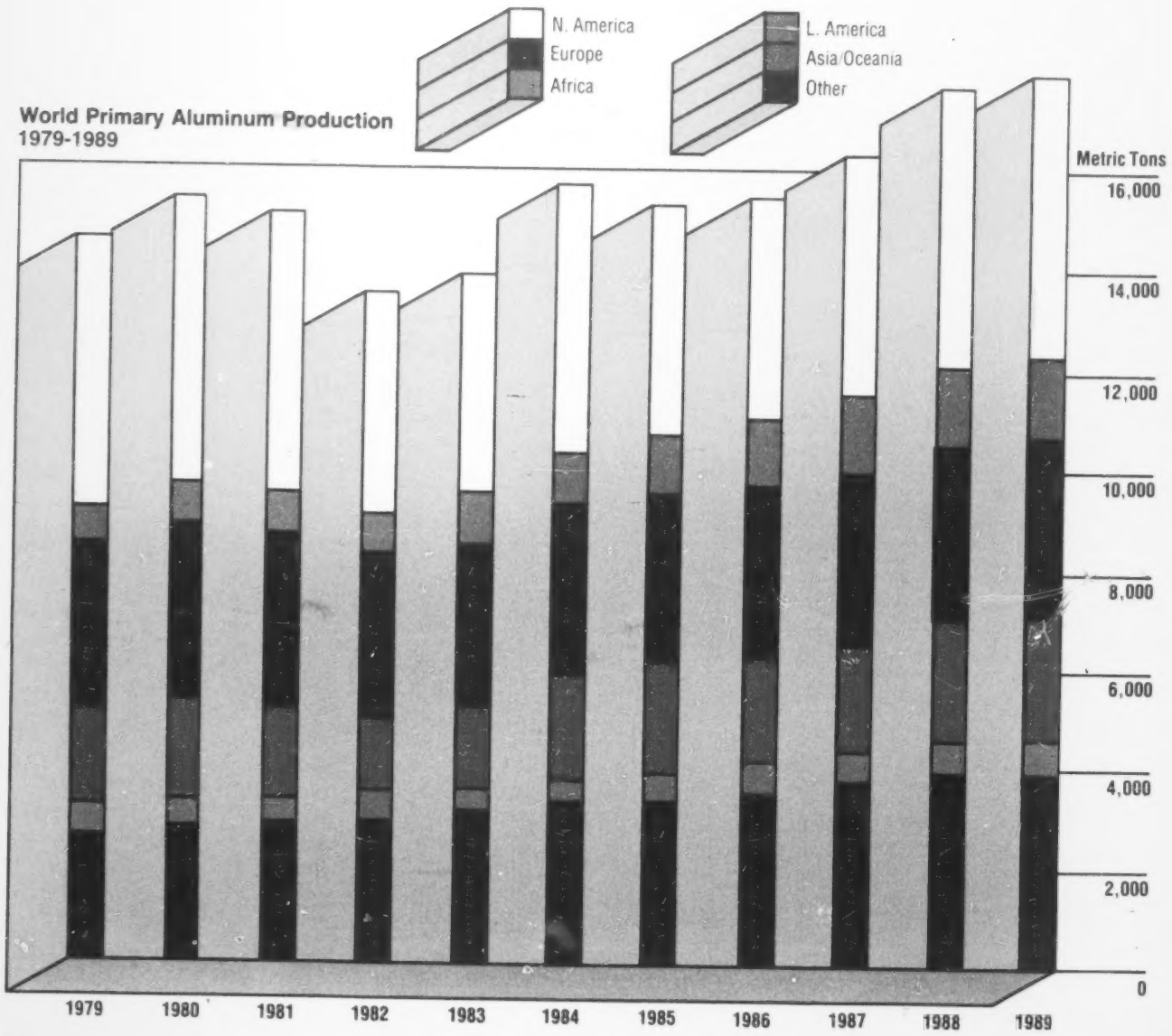
WORLD PRODUCTION UP 2.1 PERCENT

Estimated 1989 world production of primary aluminum totaled 17,980 thousand metric tons, up 2.1 percent from the revised estimate of 17,608 thousand tons in 1988 according to Bureau of Mines data.

Over the decade 1979-1989 world production increased 22.5 percent, an annual growth rate of 2.1 percent.

The United States accounted for 22.4 percent of the world's 1989 production while Europe accounted for 19.9 percent. The remaining 57.7 percent includes Asia (6.1 percent), Canada (8.6 percent), South America (9.3 percent), Oceania (8.4 percent), Africa (3.3 percent), and others (22.0 percent).

World Primary Aluminum Production
1979-1989



World Primary Aluminum Production
1979-1989

Thousands of Metric Tons

Country	1989 p	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
TOTAL WORLD [1]	17,980	17,608 r	16,385 r	15,413 r	15,398	15,705	13,904	13,433	15,079	15,383	14,555
AFRICA	598	593 r	579 r	554	513	410	420	500	473	437	400
Cameroon	86	87 r	79 r	84	90	73	77	79	65	43	44
Egypt	173	173 r	179	175	209	170	140	141	134	120	102
Ghana	169	161 r	150	126	49	-	42	174	190	188	169
South Africa	170	172	171	170	165	167	161	106	84	87	86
NORTH AMERICA	5,585	5,479	4,883	4,392	4,782	5,321	4,444	4,339	5,605	5,722	5,377
Canada	1,555	1,535	1,540	1,355	1,282	1,222	1,091	1,065	1,116	1,068	820
United States	4,030	3,944	3,343	3,037	3,500	4,099	3,353	3,274	4,489	4,654	4,557
LATIN AMERICA	1,672	1,564 r	1,503 r	1,395 r	1,153	1,048	938	795	788	821	693
Argentina	155	154 r	153 r	148	136	134	133	138	134	133	119
Brazil	935	874	843	757	549	455	401	299	256	261	239
Mexico	72	71 r	65 r	37 r	43	44	40	41	43	43	44
Suriname	10	10 r	2 r	29 r	29	29	29	43	41	55	64
Venezuela	500	455	440	424	396	386	335	274	314	328	228
ASIA	1,090	1,054 r	947 r	1,068	1,148	1,185	980	1,027	1,322	1,560	1,471
Bahrain	184	182	130	178	176	177	172	171	130	126	126
India	375	375 r	265 r	257	260	269	204	217	213	185	211
Indonesia	222	185 r	202 r	219	217	199	115	33	-	-	-
Iran	40	40	40	40	43	42	39	45	13	16	14
Japan	35	35	41	140	227	287	256	351	771	1,091	1,011
Korea, Republic of	17	18 r	22	19	18	18	13	15	18	18	22
Taiwan	-	-	-	-	-	-	-	10	31	64	56
Turkey	57	57	42	60	54	38	30	36	40	34	32
United Arab Imirates	160	162	155	155	153	155	151	149	106	25	-
EUROPEAN COMMUNITY	2,365	2,346 r	2,332	2,346	2,283	2,403	2,282	2,340	2,583	2,598	2,423
France	335	328 r	323	322	293	342	361	390	436	432	396
Germany, Fed. Rep.	742	744	738	765	745	777	743	723	729	731	741
Greece	145	151 r	127	124	125	136	136	135	146	146	141
Italy	220	222 r	233	243	224	230	196	233	274	271	269
Netherlands	274	278	276	266	251	249	235	251	262	259	258
Spain	352	323	341	350	370	381	358	367	397	386	259
United Kingdom	297	300	294	276	275	288	253	241	339	374	359
OTHER EUROPE	1,209	1,212 r	1,138 r	1,053	1,067	1,103	1,041	961	967	988	993
Austria	93	95 r	93	93	94	96	94	94	94	94	93
Iceland	89	82	85	76	73	80	76	75	74	73	73
Norway	859	864 r	806	726	743	765	713	638	634	653	664
Sweden	97	99 r	81 r	78	84	83	82	79	83	82	82
Switzerland	71	72	73	80	73	79	76	75	82	86	83
OCEANIA	1,504	1,414 r	1,256 r	1,118 r	1,092	1,001	697	544	533	458	424
Australia	1,244	1,150	1,004	882	851	758	478	381	379	303	269
New Zealand	260	264 r	252 r	236 r	241	243	219	163	154	155	154
OTHER	3,957	3,946 r	3,747	3,487	3,360	3,234	3,102	2,927	2,808	2,799	2,773
China, P.R. [1]	825	800	615	410	410	400	400	380	350	360	363
Czechoslavakia [1][2]	30	32	32	33	32	32	36	34	33	38	37
German D.R. [1]	60	61 r	62	61	60	58	57	58	60	60	60
Hungary	75	75	76	74	74	74	74	74	74	73	72
Korea, Peop. Rep.	10	10	10	10	10	10	10	10	10	10	10
Poland [3]	47	48	48	48	47	46	44	43	66	95	96
Romania	250	260	260	269	247	244	223	208	242	241	217
U.S.S.R [1]	2,400	2,400	2,400	2,300	2,200	2,100	2,000	1,900	1,800	1,760	1,751
Yugoslavia	260	260	244	282	280	270	258	220	173	161	168

Detail may not add due to rounding

(1) Estimated by the Bureau of Mines, U.S. Department of Interior
(2) Includes secondary unalloyed ingot
(3) Includes primary alloyed ingot

r-revised
p-preliminary

SOURCE: Bureau of Mines, U.S. Department of Interior

Aluminium Supply and Apparent Consumption —

PER CAPITA CONSUMPTION UP 3.0 PERCENT

Per capita aluminum consumption, for those countries which provided both 1988 and 1989 data, increased an average of 3.0 percent in 1989 as compared with 1988. Of the 27 countries which responded to our 1989 survey, 19 (70%) showed increased usage in 1989 while the remainder, 8 (30%) indicated decreased or steady usage.

In 1989, the United States was the fourth largest user of aluminum on a per capita basis (56.8 pounds; 25.8 Kg.). The decline from the previous year was partially caused by a drop in secondary recovery and increased exports. The largest user was Japan, (65.1 pounds; 29.5 Kg.), followed by West Germany (62.5 pounds; 28.3 Kg.), and Canada (61.8 pounds; 28.0 Kg.).

Per Capita Aluminum Consumption Formula

1. + Primary aluminum production
2. ± Government stockpile adjustment
3. + Imports of ingot
4. + Imports of mill products (aluminum alloy weight)
5. + Recovery of secondary aluminum alloys (from domestic and imported scrap)
6. — Exports of ingot
7. — Exports of mill products (aluminum alloy weight)
8. = Apparent aluminum consumption
9. + Beginning of year inventory
10. — End of year inventory
11. ± Inventory change
12. = Aluminum consumption (with inventory change)
13. ÷ Mid-year population
14. = Per capita consumption (Kg.) (without inventory change)
15. = Per capita consumption (Kg.) (with inventory change)

DESCRIPTION:

The Aluminum Association, in conjunction with industry associations in foreign countries, and, in some instances appropriate government agencies, is developing a joint program to compile uniform statistical data showing total supply and apparent consumption. Total supply for an individual country consists of primary production, imports, and secondary recovery. Apparent consumption is equal to the sum of these sources of total supply less exports and inventory changes. Production of primary aluminum for the foreign countries is tabulated for the years 1979-1989 on page 45.

The tables on pages 48-61 show total supply and apparent consumption corresponding to the above format for the following countries:

Argentina
Australia
Austria
Bahrain
Belgium
Brazil
Cameroon
Canada
Denmark
Finland
France
Germany, F.R.
Greece
Hungary
Iceland
Irish Rep.
Italy
Japan
Korea, Rep.
Mexico
Netherlands
New Zealand
Norway
Panama
Philippines
Portugal
El Salvador
Saudi Arabia
Singapore
South Africa
Spain
Sweden
Switzerland
Taiwan
Turkey
United Kingdom
United States
Venezuela

The format for compiling total supply and apparent consumption data is shown below.

In order to develop a basis for showing relative aluminum usage by country and to provide a measure of trend over time, per capita consumption data have been calculated for each country. For this purpose mid-year population estimates have been used. It is important to emphasize that these estimates are not the only way of measuring relative consumption data among countries. Obviously, the composition of a country's population, standard of living, industrialization, climate, availability and economies of other materials, and a number of other important considerations affect the per capita use of aluminum. The formula is used because it is simple and permits the Association to compile data for more countries, with their cooperation, than can be compiled using more detailed information.

When data for individual lines are not available or are not appropriate, they are omitted. Inventory changes cover suppliers' inventories only. Consumption estimates exclude changes in customer inventories.

The components of the formula are numbered and cross referenced to the country details on pages 48-61.

A summary of per capita consumption covering the years 1979-1989 for each of the countries is shown on page 47 in pounds.

Conversion factor:
One metric ton = 2,204.6 pounds.

Selected Countries

Per Capita Aluminum Consumption of Selected Countries 1979-1989

Pounds per person per year *(a)*

	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
Argentina *	3.6	5.0	5.5	4.7	2.7	5.6	5.4	4.8	4.0	4.8	6.9
Australia *	43.3	44.8	41.5	38.1	39.9	36.6	33.8	36.7	46.9	38.9	37.6
Austria *	47.7	40.0	31.2	32.0	27.7	28.9	25.6	23.8	26.5	27.6	24.9
Bahrain *	-	-	-	- r	24.8	22.0	18.9	10.7	12.6	20.4	27.6
Belgium	16.3	23.0	17.0	22.9	21.0	25.5	20.9	20.5	16.2	20.6	18.8
Brazil *	5.9	5.8	6.4	6.8	5.8	4.8	4.9	5.4	5.1	6.5	6.4
Cameroon	3.5	2.6	3.8	4.5	4.7	4.4	2.0	3.6	3.4	6.3	4.7
Canada *	61.8	59.0	48.7	42.4	45.1	43.6	32.1	37.2	36.1	35.5	37.1
Denmark	na	22.9	18.9	21.1	19.4	20.1	30.2	30.5	27.3	27.6	31.7
Finland	22.3	23.3 r	20.8 r	19.6 r	14.3 r	13.0 r	11.5	14.6	14.1	14.3	16.5
France *	36.9	35.6 r	31.5	31.0	28.3	27.4	28.9	29.1	27.7	31.5	28.1
Germany, Federal Republic *	62.5	60.0 r	57.9	56.3	54.7	53.4 r	42.3	46.4	42.6	54.8	44.6
Greece	na	na	1.2	12.5	8.6	11.4	10.8	10.6	13.0	13.0	9.4
Hungary *	33.8	35.6	37.3	36.6	34.8	33.9	33.0	32.7	33.1	32.4	33.0
Iceland	22.7	25.4 r	23.2	18.1	17.3	19.3	27.8	23.5	27.9	22.2	20.5
Ireland	11.4	9.7	11.6	11.0	10.0	11.4	8.3	8.8	9.1	9.7	10.9
Italy *	41.3	39.7	36.3 r	32.2	30.1	29.6	29.2	27.2	27.6	32.3	28.1
Japan *	65.1	61.8	47.8	44.6	47.4	41.3	44.4	41.0	37.8	42.9	43.2
Korea, Republic of	na	na	na	na	9.9	9.9	9.3	7.5	6.8	4.2	7.1
Mexico *	3.3	2.5	2.9	2.8	4.4	3.5	2.5	4.8	6.5	5.6	4.9
Netherlands *	32.7	32.5	31.8	32.2	31.5 r	32.6 r	31.4	31.4	31.7	30.6	39.5
New Zealand *	24.3	22.5	26.3	22.4	22.2	20.9	18.4	15.5	20.5	17.1	34.5
Norway *	na	46.8	32.0	40.7	45.0	48.0	29.4	60.4	41.7	50.0	53.1
Panama	4.6	3.0	3.7	1.7	1.7 r	4.8	3.1	1.8	2.3	2.0	2.1
Philippines, Republic of	na	na	0.5	0.3	0.3	0.4	0.6	1.0	0.4	0.8	1.6
Portugal	10.8	9.9 r	9.8 r	10.0	8.3	6.9	10.0	11.0	11.0	8.5	7.6
El Salvador	0.7	0.7	0.7	0.4	0.1	0.4	1.1	0.6	0.7	0.4	1.1
Saudi Arabia, Kingdom of	na	18.7	16.1	13.0	30.2	19.8	46.3	9.5	25.1	24.7	19.0
Singapore, Republic of	1.9	45.8	49.8	25.5	25.8	26.1	22.9	22.9	25.7	20.2	20.2
South Africa, Republic of *	12.3	11.4	9.3 r	9.2	9.3	9.4	9.2	9.0	10.2	9.9	5.8
Spain *	15.5	15.3	14.7	12.5	10.0	9.7	11.8	12.1	11.5	14.2	12.8
Sweden *	49.6	50.0	47.2	45.2	45.4 r	45.6 r	42.1	39.9	34.8	34.4	36.8
Switzerland *	55.4	41.8	41.4	45.0	41.7	40.2	32.8	32.8	34.1	37.7	31.4
Taiwan, Republic of China *	na	na	na	na	17.1	12.6	19.6	13.7	14.5	13.5	15.0
Turkey, Republic of	na	4.1 r	5.4 r	3.6 r	4.1 r	3.8 r	4.7	5.4	8.8	2.3	2.4
United Kingdom	25.3	25.1	24.1	22.8	21.8	23.7	20.9	18.6	17.1	18.0	22.1
United States *	56.8	60.6	61.6	58.1	58.7	59.4	57.8	51.0	55.2	56.7	65.8
Venezuela *	na	na	na	14.5 r	10.6 r	12.8 r	12.2	14.0	9.5	15.3	12.8

** Adjusted for inventory change*
r - revised
na - Not available at publication
(a) See individual countries for kilogram measures

Per Capita Aluminum Consumption

ARGENTINA

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	162.0	155.1	152.5	147.6	136.2	133.7	132.8	137.5	134.1	133.1	118.4
4.	+ Imports of Mill Products	1.1	2.3	3.5	1.4	1.0	0.9	1.1	10.5	5.1	4.0	1.4
5.	+ Recovery of Secondary	5.3	7.1	7.7	6.5	3.7	7.5	7.0	6.0	5.0	7.0	8.0
6.	- Exports of Ingot	41.4	10.9	13.8	34.8	66.1	30.1	43.8	67.6	88.2	63.4	31.3
7.	- Exports of Mill Products	48.5	78.3	73.3	60.6	45.1	29.7	16.5	16.4	11.3	8.9	4.1
8.	= Apparent Aluminum Consumption	78.5	75.3	76.6	60.2	29.7	82.3	80.6	70.0	44.7	71.8	92.4
11.	+ Inventory Change	25.7	4.1	(0.6)	(5.5)	(7.1)	6.5	8.6	7.0	(6.8)	10.0	6.0
12.	= Aluminum Consumption	52.8	71.2	77.2	65.7	36.8	75.8	72.0	63.0	51.5	61.8	86.4
13.	Mid-Year Population (Millions)	32.2	31.7	31.2	31.0	30.6	30.1	29.6	29.2	28.7	28.2	27.8
14.	= Per Capita Consumption (kg) (1)	2.4	2.4	2.5	1.9	1.0	2.7	2.7	2.4	1.6	2.5	3.3
15.	= Per Capita Consumption (kg) (2)	1.6	2.2	2.5	2.1	1.2	2.5	2.4	2.2	1.8	2.2	3.1

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Ministerio de Defensa and Aluminio Argentino, SAIC

AUSTRALIA

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	1,242.0	1,141.3	1,024.2	875.0	851.2	756.7	474.1	380.2	378.7	302.5	273.2
3.	+ Imports of Ingot	3.0	2.3	—	0.1	0.6	0.5	4.5	13.2	8.4	8.0	3.5
4.	+ Imports of Mill Products	18.7	14.5	12.4	8.4	10.2	8.7	6.4	13.1	14.4	10.7	8.1
5.	+ Recovery of Secondary	48.4	46.5	39.0	30.0	45.6	43.3	37.7	40.7	44.4	38.0	30.5
6.	- Exports of Ingot	923.4	812.2	737.0	588.0	577.2	477.3	215.8	185.6	122.6	35.6	63.1
7.	- Exports of Mill Products	52.0	54.1	57.9	56.4	54.0	58.8	49.5	32.6	25.4	18.4	16.1
8.	= Apparent Aluminum Consumption	336.7	338.3	280.7	269.1	276.4	273.1	257.4	229.1	297.9	305.3	236.1
11.	+ Inventory Change	6.7	3.3	(24.3)	(6.5)	(8.5)	14.6	21.7	(23.7)	(19.0)	47.4	(9.7)
12.	= Aluminum Consumption	330.0	335.0	305.0	275.6	284.9	258.5	235.8	252.7	316.9	257.9	245.8
13.	Mid-Year Population (Millions)	16.8	16.5	16.2	16.0	15.8	15.5	15.4	15.2	14.9	14.6	14.4
14.	= Per Capita Consumption (kg) (1)	20.0	20.5	17.3	16.8	17.5	17.6	16.7	15.1	20.0	20.9	16.4
15.	= Per Capita Consumption (kg) (2)	19.6	20.3	18.8	17.3	18.1	16.6	15.3	16.6	21.3	17.7	17.1

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Aluminum Development Council Australia

AUSTRIA

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	92.9	95.5	93.4	92.5	94.1	95.8	94.2	93.9	94.2	94.4	92.7
3.	+ Imports of Ingot	97.8	76.4	61.3	78.9	65.4	61.4	40.2	38.7	33.2	35.2	30.7
4.	+ Imports of Mill Products	70.1	52.0	63.6	54.8	54.9	52.3	48.5	42.4	37.6	39.2	35.8
5.	+ Recovery of Secondary	34.1	29.4	27.2	24.7	21.1	21.6	16.1	14.2	13.8	14.3	8.7
6.	- Exports of Ingot	20.0	21.0	33.7	28.3	26.7	25.5	25.6	25.6	25.0	9.8	10.3
7.	- Exports of Mill Products	110.5	99.9	116.9	105.3	110.1	100.0	101.4	78.6	69.1	66.4	74.3
8.	= Apparent Aluminum Consumption	164.4	132.4	94.9	117.3	98.7	105.6	72.0	85.0	84.6	107.0	84.3
11.	+ Inventory Change	—	(5.4)	(12.5)	7.1	4.5	7.0	(14.7)	3.8	(5.4)	13.0	(0.6)
12.	= Aluminum Consumption	164.4	137.8	107.4	110.2	94.2	98.6	86.7	81.2	90.0	94.0	84.9
13.	Mid-Year Population (Millions)	7.6	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.5	7.5	7.5
14.	= Per Capita Consumption (kg) (1)	21.6	17.4	12.5	15.4	13.2	14.1	9.6	11.3	11.3	14.3	11.2
15.	= Per Capita Consumption (kg) (2)	21.6	18.1	14.1	14.5	12.6	13.1	11.6	10.8	12.0	12.5	11.3

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Fachverband der Metallindustrie Osterreichs

BAHRAIN

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	187.0	183.0	182.0	176.6	175.5	175.8	171.7	171.0	142.0	126.1	127.1
5.	+ Recovery of Secondary	2.0	2.0	—	1.5	—	—	—	1.5			
6.	- Exports of Ingot	116.0	114.0	129.0	199.9	133.0	168.3	190.5	157.0	83.0	78.0	131.1
7.	- Exports of Mill Products	38.0	42.0	33.0	—	15.2	13.2	18.0	12.0	15.0	17.0	6.0
8.	= Apparent Aluminum Consumption	35.0	29.0	20.0	(21.8)r	27.3	(5.7)	(36.8)	3.5	44.0	31.1	(10.0)
9.	+ Beginning Inventory	11.0	13.0	16.1 r	64.7	41.9	51.6	91.7	90.0	48.0	20.0	34.0
10.	- Ending Inventory	17.0	11.0	13.0	16.1	64.7	41.9	51.6	91.7	90.0	48.0	20.0
11.	= Inventory Change	6.0	(2.0)	(3.1)r	(48.6)r	22.8	(9.7)	(40.1)	1.7	42.0	28.0	(14.0)
12.	= Aluminum Consumption	29.0	31.0	23.1 r	26.8 r	4.5	4.0	3.3	1.8	2.0	3.1	4.0
13.	Mid-Year Population (Millions)	0.49	0.47	0.42	0.41	0.40	0.40	0.38	0.37	0.35	0.34	0.32
14.	= Per Capita Consumption (kg) (1)	71.6	61.3 r	48.1	(53.0)r	68.3	(14.2)	(95.8)	9.4	125.4	92.8	(31.3)
15.	= Per Capita Consumption (kg) (2)	59.3	65.5 r	55.5 r	65.2 r	11.2	10.0	8.6	4.9	5.7	9.3	12.5

NOTES: *(1) Without Inventory Change*
(2) Adjusted for Inventory Change
r — revised

Source: Aluminum Bahrain B.S.C.

BELGIUM

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
3.	+ Imports of Ingot	358.1	355.1	315.5	307.4	307.9	311.0	289.7	267.4	245.0	252.5	252.8
4.	+ Imports of Mill Products	141.7	150.0	121.8	109.9	95.7	93.8	90.5	86.9	62.9	64.9	87.1
6.	- Exports of Ingot	35.4	32.9	27.6	24.9	23.0	10.3	17.3	13.8	29.7	19.6	10.8
7.	- Exports of Mill Products	390.8	369.1	333.5	289.4	286.5	280.6	269.1	248.5	206.3	205.1	245.4
8.	= Apparent Aluminum Consumption	73.6	103.1	76.2	103.0	94.1	113.9	93.8	92.0	71.9	92.7	83.7
13.	Mid-Year Population (Millions)	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.8	9.9	9.8
14.	= Per Capita Consumption (kg) (1)	7.4	10.4	7.7	10.4	9.5	11.6	9.5	9.3	7.3	9.4	8.5

NOTES: *(1) Without Inventory Change*

Source: Federation des Enterprises de Metaux Non Ferreux

BRAZIL

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	887.9	873.5	843.5	757.3	549.4	455.0	400.7	299.0	256.4	260.6	238.1
3.	+ Imports of Ingot	2.5	0.1	2.3	1.4	2.6	4.6	3.0	10.8	28.3	46.7	51.8
4.	+ Imports of Mill Products	9.3	7.3	6.3	2.2	3.8	5.0	2.8	3.9	8.7	22.3	27.3
5.	+ Recovery of Secondary	66.6	66.8	65.9	60.6	52.7	47.2	45.0	37.8	37.3	46.1	53.8
6.	- Exports of Ingot	472.1	514.9	430.9	323.5	179.1	148.0	116.3	6.7	2.2	—	-
7.	- Exports of Mill Products	54.4	41.6	26.0	33.5	36.0	57.3	53.3	11.7	18.6	11.5	8.6
8.	= Apparent Aluminum Consumption	439.8	391.2	461.1	464.5	393.4	306.5	281.9	333.1	309.9	364.2	362.4
11.	+ Inventory Change	47.1	8.6	50.1	36.0	37.6	20.1	(7.9)	21.2	20.8	10.9	24.2
12.	= Aluminum Consumption	392.7	382.6	411.0	428.5	355.8	286.4	289.8	311.9	289.1	353.3	338.2
13.	Mid-Year Population (Millions)	147.6	144.4	141.4	138.4	135.6	132.6	129.6	126.8	124.0	119.1	116.3
14.	= Per Capita Consumption (kg) (1)	3.0	2.7	3.3	3.4	2.9	2.3	2.2	2.6	2.5	3.1	3.1
15.	= Per Capita Consumption (kg) (2)	2.7	2.6	2.9	3.1	2.6	2.2	2.2	2.5	2.3	3.0	2.9

NOTES: *(1) Without Inventory Change*
(2) Adjusted for Inventory Change

Source: Associacao Brasileira do Aluminio

Per Capita Aluminum Consumption—Continued

CAMEROON

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	87.3	80.0	71.5	81.1	81.6	73.1	77.4	78.9	65.4	43.0	44.6
3.	+ Imports of Ingot	—	—	—	—	—	—	—	—	—	—	0.8
4.	+ Imports of Mill Products	—	—	—	—	0.1	—	—	0.9	0.9	0.9	0.4
6.	- Exports of Ingot	62.4	63.1	47.4	53.0	51.9	49.4	51.1	55.4	44.5	13.3	20.2
7.	- Exports of Mill Products	7.1	6.0	5.8	6.8	8.9	6.7	9.8	10.7	7.0	5.1	10.0
8.	= Apparent Aluminum Consumption	17.8	10.9	18.3	21.3	20.9	17.0	16.5	13.7	14.8	25.5	15.6
11.	+ Inventory Change	0.8	(1.8)	(0.5)	0.3	0.2	(1.1)	8.6	(0.5)	1.6	1.8	(1.7)
12.	= Aluminum Consumption	17.0	12.7	18.8	21.0	20.7	18.1	7.9	14.2	13.2	23.7	17.3
13.	Mid-Year Population (Millions)	10.9	10.9	10.9	10.2	9.6	9.2	8.9	8.7	8.5	8.3	8.1
14.	= Per Capita Consumption (kg) (1)	1.6	1.0	1.7	2.1	2.2	1.9	1.9	1.6	1.7	3.1	1.9
15.	= Per Capita Consumption (kg) (2)	1.6	1.2	1.7	2.1	2.2	2.0	0.9	1.6	1.6	2.9	2.1

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Societe de Vante de l'Aluminium Pechiney

CANADA

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	1,557.0	1,535.0	1,547.0	1,355.0	1,282.0	1,223.0	1,094.0	1,070.0	1,118.1	1,074.0	863.3
3.	+ Imports of Ingot	65.0	59.0	53.0	65.0	60.0	39.0	31.0	24.0	14.3	9.9	24.0
4.	+ Imports of Mill Products	342.0	311.0	214.0	179.0	174.0	188.0	122.0	110.0	125.1	118.1	144.2
5.	+ Recovery of Secondary	90.0	86.0	80.0	78.0	74.0	70.0	56.0	50.0	65.0	65.1	84.5
6.	- Exports of Ingot	1,159.0	1,155.0	1,172.0	1,164.0	1,051.0	834.0	925.0	896.0	725.5	784.7	550.5
7.	- Exports of Mill Products	157.0	143.0	155.0	82.0	78.0	100.0	65.0	42.0	40.5	39.6	36.1
8.	= Apparent Aluminum Consumption	738.0	693.0	567.0	431.0	461.0	586.0	313.0	316.0	556.5	442.8	529.4
11.	+ Inventory Change	9.0	2.0	(1.0)	(57.0)	(54.0)	92.0	(48.0)	(99.0)	160.0	57.9	130.4
12.	= Aluminum Consumption	729.0	691.0	568.0	488.0	515.0	494.0	361.0	415.0	396.5	384.9	399.0
13.	Mid-Year Population (Millions)	26.0	25.8	25.7	25.4	25.2	25.0	24.8	24.6	24.2	23.9	23.7
14.	= Per Capita Consumption (kg) (1)	28.4	26.9	22.1	17.0	18.3	23.4	12.6	12.8	23.0	18.5	22.3
15.	= Per Capita Consumption (kg) (2)	28.0	26.8	22.1	19.2	20.4	19.8	14.6	16.9	16.4	16.1	16.8

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Aluminium Company of Canada, Ltd.

DENMARK

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
3.	+ Imports of Ingot	na	39.2	35.0	39.6	37.6	34.1	28.0	25.1	21.2	24.2	22.5
4.	+ Imports of Mill Products	na	79.3	61.3	56.4	53.1	55.0	62.5	43.9	40.5	45.4	49.8
5.	+ Recovery of Secondary	na	—	—	—	—	—	28.0	32.3	30.3	24.9	31.1
6.	- Exports of Ingot	na	37.6	37.8	30.8	28.8	25.5	24.0	20.1	20.1	18.9	21.5
7.	- Exports of Mill Products	na	27.8	14.8	16.4	16.9	17.0	24.5	10.4	8.4	11.4	8.3
8.	= Apparent Aluminum Consumption	na	53.1	43.7	48.8	45.0	46.6	70.0	70.8	63.5	64.2	73.6
13.	Mid-Year Population (Millions)	na	5.11	5.11	5.11	5.11	5.11	5.11	5.12	5.12	5.12	5.12
14.	= Per Capita Consumption (kg) (1)	na	10.4	8.6	9.5	8.8	9.1	13.7	13.8	12.4	12.5	14.4

NOTES: (1) Without Inventory Change

Source: Danmarks Statistik

Detail may not add to totals due to rounding.

FINLAND

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
3.	+ Imports of Ingot	23.7	23.6	23.5	21.6	20.3	20.7	26.3	27.2	28.8	26.7	24.9
4.	+ Imports of Mill Products	39.0	36.4 r	28.8	25.0	23.1	24.5	24.0	22.4	21.9	28.8	26.8
5.	+ Recovery of Secondary	24.0	29.9 r	27.8 r	21.7 r	22.1 r	18.7 r	5.4	6.8	6.5	6.6	7.6
6.	- Exports of Ingot	24.0	25.3	24.3	17.0	16.2	13.6	10.7	6.3	4.6	3.9	1.3
7.	- Exports of Mill Products	12.6	12.3 r	9.3	7.5	17.5	21.5	19.7	18.1	22.0	27.1	22.3
8.	= Apparent Aluminum Consumption	50.1	52.3 r	46.5 r	43.8 r	31.8 r	28.8 r	25.3	32.0	30.6	31.1	35.7
13.	Mid-Year Population (Millions)	4.96	4.95	4.93	4.92	4.90	4.88	4.86	4.83	4.80	4.78	4.77
14.	= Per Capita Consumption (kg) (1)	10.1	10.6 r	9.4 r	8.9 r	6.5 r	5.9 r	5.2	6.6	6.4	6.5	7.5

NOTES: (1) Without Inventory Change
r — revised

Source: Central Statistical Office of Finland

FRANCE

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	334.9	327.7	322.5	321.8	293.2	341.5	360.9	390.4	435.6	431.9	395.1
3.	+ Imports of Ingot	484.2	461.8	407.1	428.1	396.1	365.0	394.6	352.0	300.4	332.4	315.3
4.	+ Imports of Mill Products	317.6	306.8	261.0	248.2	206.3	201.8	206.8	204.4	190.3	209.9	186.3
5.	+ Recovery of Secondary	282.4	271.7 r	236.6	215.3	201.1	205.7	212.0	197.9	211.3	205.1	165.7
6.	- Exports of Ingot	120.5	113.0	119.2	143.3	115.4	146.6	160.7	182.7	190.5	177.4	157.6
7.	- Exports of Mill Products	362.5	349.1	326.5	278.1	275.5	280.8	294.6	263.0	248.5	230.0	259.9
8.	= Apparent Aluminum Consumption	936.1	905.9 r	781.5	792.0	705.8	686.6	718.9	699.0	698.6	771.9	645.0
11.	= Inventory Change	(3.6)	3.7	(13.1)	15.4	0.8	6.2	5.0	(18.1)	22.0	3.8	(36.2)
12.	= Aluminum Consumption	939.7	902.2 r	794.6	776.6	705.0	680.4	713.9	717.1	676.6	768.1	681.2
13.	Mid-Year Population (Millions)	56.1	55.9	55.6	55.2	54.9	54.7	54.4	54.3	53.9	53.7	53.5
14.	= Per Capita Consumption (kg) (1)	16.7	16.2 r	14.1	14.3	12.9	12.6	13.2	12.9	13.0	14.4	12.1
15.	= Per Capita Consumption (kg) (2)	16.8	16.2 r	14.3	14.1	12.8	12.4	13.1	13.2	12.6	14.3	12.7

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: Societe de Vante de l'Aluminium Pechiney

GERMANY, FEDERAL REPUBLIC OF

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	742.0	744.1	737.7	763.7	745.4	777.2	743.3	722.8	728.9	730.7	741.9
3.	+ Imports of Ingot	943.2	806.7	734.0	784.0	721.6	722.7	592.1	565.3	500.0	608.8	511.5
4.	+ Imports of Mill Products	450.0	424.6 r	379.9	327.7	322.7	304.7	299.0	262.3	240.1	284.1	262.3
5.	+ Recovery of Secondary	687.6	678.2	610.3	590.3	567.1	480.8	458.9	398.1	413.4	425.0	425.4
6.	- Exports of Ingot	326.0	323.8	333.6	301.7	281.7	294.3	321.1	255.4	253.0	223.7	247.8
7.	- Exports of Mill Products	700.0	676.1 r	589.2	563.4	560.7	558.3	512.9	449.7	406.9	387.9	395.5
8.	= Apparent Aluminum Consumption	1,796.8	1,653.7 r	1,539.1	1,600.6	1,514.4	1,432.8	1,259.3	1,243.3	1,222.6	1,437.0	1,297.7
9.	+ Beginning Inventory	212.5	230.5	294.9	254.9	253.5	302.7	221.3	269.3	240.1	325.9	269.7
10.	- Ending Inventory	251.7	212.5	230.5	294.9	254.9	253.5	302.7	221.3	269.3	240.1	325.9
11.	= Inventory Change	39.2	(18.0)	(64.4)	40.0	1.4	(49.2)r	81.4	(48.0)	29.2	(85.8)	56.2
12.	= Aluminum Consumption	1,757.6	1,671.7 r	1,603.5	1,560.6	1,513.0	1,482.0 r	1,177.9	1,291.3	1,193.4	1,522.8	1,241.5
13.	Mid-Year Population (Millions)	62.0	61.4	61.1	61.1	61.0	61.2	61.4	61.3	61.7	61.3	61.4
14.	= Per Capita Consumption (kg) (1)	29.0	26.9 r	25.2	26.2	24.8	23.4	20.5	20.3	19.8	23.4	21.1
15.	= Per Capita Consumption (kg) (2)	28.3	27.2 r	26.2	25.5	24.8	24.2 r	19.2	21.1	19.3	24.8	20.2

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: Aluminium-Zentrale e.V and German Metals Fed.

Per Capita Aluminum Consumption—Continued

GREECE

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	na	na	130.0	126.3	123.4	136.0	136.2	134.9	146.1	145.6	140.8
3.	+ Imports of Ingot	na	na	13.5	7.2	3.6	6.5	2.1	4.0	2.8	0.1	0.3
4.	+ Imports of Mill Products	na	na	10.7	7.8	4.7	5.5	5.3	4.1	4.4	3.9	3.5
6.	- Exports of Ingot	na	na	71.8	45.8	43.2	48.4	55.1	66.6	69.2	60.2	74.0
7.	- Exports of Mill Products	na	na	76.8	39.4	49.8	48.5	40.6	29.5	26.9	32.7	30.0
8.	= Apparent Aluminum Consumption	na	na	5.6	56.1	38.7	51.1	47.8	46.9	57.2	56.7	40.6
13.	Mid-Year Population (Millions)	na	na	10.0	9.9	9.9	9.9	9.9	9.8	9.7	9.6	9.5
14.	= Per Capita Consumption (kg) (1)	na	na	0.6	5.7	3.9	5.2	4.9	4.8	5.9	5.9	4.3

NOTES: (1) Without Inventory Change
na — not available

Source: National Statistical Service of Greece

HUNGARY

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	75.2	74.7	73.5	73.9	73.8	74.2	74.0	74.2	74.2	73.5	71.9
3.	+ Imports of Ingot	205.5	211.4	199.7	205.6	na	na	na	na	na	191.1	na
4.	+ Imports of Mill Products	3.6	3.9	3.8	5.5	na	na	na	na	na	7.7	na
5.	+ Recovery of Secondary	31.0	27.0	26.8	27.3	23.3	31.9	28.5	25.7	25.2	22.7	24.2
6.	- Exports of Ingot	84.5	68.4	72.2	64.4	na	na	na	na	na	90.3	na
7.	- Exports of Mill Products	67.6	66.6	57.2	59.3	55.6	52.0	49.6	42.2	31.4	28.9	26.6
8.	= Apparent Aluminum Consumption	163.2	182.0	174.4	188.6	168.0	163.9	160.0	159.0	161.0	175.8	160.1
9.	+ Beginning Inventory	40.0	33.4	38.6	26.3	na	na	na	na	na	na	na
10.	- Ending Inventory	41.0	44.0	33.4	38.6	na	na	na	na	na	na	na
11.	= Inventory Change	1.0	10.6	(5.2)	12.3	na	na	na	na	na	18.6	na
12.	= Aluminum Consumption	162.2	171.4	179.6	176.3	168.0	163.9	160.0	159.0	161.0	157.2	160.1
13.	Mid-Year Population (Millions)	10.6	10.6	10.6	10.6	10.6	10.7	10.7	10.7	10.7	10.7	10.7
14.	= Per Capita Consumption (kg) (1)	15.4	17.2	16.4	17.8	15.8	15.4	15.0	14.9	15.0	16.4	15.0
15.	= Per Capita Consumption (kg) (2)	15.3	16.2	16.9	16.6	15.8	15.4	15.0	14.9	15.0	14.7	15.0

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Hungalu Engineering and Development Center

ICELAND

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	88.5	82.0	83.5	78.2	75.4	80.4	76.1	75.2	73.7	73.1	71.0
4.	+ Imports of Mill Products	2.6	2.9	2.6	2.0	1.9	2.1	3.0	2.5	2.9	2.3	1.8
6.	- Exports of Ingot	90.1	81.4 r	89.2	76.3	72.1	79.9	106.9	61.5	64.1	67.4	77.2
8.	= Apparent Aluminum Consumption	1.0	3.5 r	(3.1)	3.9	5.2	2.6	(27.8)	16.2	12.5	8.0	(4.4)
9.	+ Beginning Inventory	3.6	3.0	8.7	6.8	3.5	3.0	33.8	20.1	10.5	4.8	11.3
10.	- Ending Inventory	2.0	3.6	3.0	8.7	6.8	3.5	3.0	33.8	20.1	10.5	4.8
11.	= Inventory Change	(1.6)	0.6	(5.7)	1.9	3.3	0.5	(30.8)	13.7	9.6	5.7	(6.5)
12.	= Aluminum Consumption	2.6	2.9 r	2.6	2.0	1.9	2.1	3.0	2.5	2.9	2.3	2.1
13.	Mid-Year Population (Millions)	0.25	0.25	0.25	0.24	0.24	0.24	0.24	0.24	0.23	0.23	0.23
14.	= Per Capita Consumption (kg) (1)	4.0	13.9 r	(12.6)	16.0	21.5	10.8	(116.8)	68.9	54.6	35.1	(19.5)
15.	= Per Capita Consumption (kg) (2)	10.3	11.5 r	10.5	8.2	7.9	8.8	12.6	10.6	12.7	10.1	9.3

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: Icelandic Aluminium Co. Ltd

Detail may not add to totals due to rounding.

IRISH REPUBLIC

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	*	*	*	—	—	—	—	—	—	—	-
4.	+ Imports	49.6	49.8	50.2	49.0	42.3	42.4	36.2	30.8	28.6	31.2	29.8
7.	- Exports	31.4	34.2	31.5	31.3	26.2	24.2	23.0	16.9	14.5	16.3	13.0
8.	= Apparent Aluminum Consumption	18.2	15.6	18.7	17.7	16.1	18.2	13.2	13.9	14.1	14.9	16.8
13.	Mid-Year Population (Millions)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4
14.	= Per Capita Consumption (kg) (1)	5.2	4.4	5.3	5.0	4.5	5.2	3.8	4.0	4.1	4.4	4.9

NOTES: (1) Without Inventory Change
* — Less than 50 metric tons

Source: Central Statistics Office, Dublin

ITALY

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	219.5	226.3	232.6	242.6	224.1	230.2	195.7	232.9	273.8	271.2	269.1
3.	+ Imports of Ingot	461.0	417.9	376.9	347.7	319.9	291.8	254.5	211.2	208.8	294.8	236.6
4.	+ Imports of Mill Products	186.4	177.8	155.6	125.2	109.7	106.1	110.3	83.3	81.6	111.6	90.2
5.	+ Recovery of Secondary	390.0	377.8	335.0	301.0	282.0	283.0	333.0	283.0	287.0	298.0	258.0
6.	- Exports of Ingot	29.8	38.4	51.6 r	34.3	43.8	32.2	41.3	54.1	49.8	11.8	22.4
7.	- Exports of Mill Products	139.5	118.2	108.2	105.9	103.0	94.0	112.2	100.9	93.6	86.4	109.9
8.	= Apparent Aluminum Consumption	1,087.6	1,043.2	940.3 r	876.3	788.9	784.9	740.0	655.4	707.6	877.4	721.6
11.	= Inventory Change	6.7	8.6	(3.1)	40.0	9.2	19.8	(13.1)	(38.0)	4.8	57.3	10.3
12.	= Aluminum Consumption	1,080.9	1,034.6	943.4 r	836.3	779.7	765.1	753.1	93.4	702.8	820.1	711.3
13.	Mid-Year Population (Millions)	57.7	57.5	57.3	57.2	57.1	57.0	56.8	56.3	56.1	55.9	55.8
14.	= Per Capita Consumption (kg) (1)	18.9	18.1	16.4 r	15.3	13.8	13.8	13.0	11.6	12.6	15.7	12.9
15.	= Per Capita Consumption (kg) (2)	18.7	18.0	16.5 r	14.6	13.7	13.4	13.3	12.3	12.5	14.7	12.7

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: Associazione Nazionale Industrie Metalli Non Ferrosi

JAPAN

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	50.7	49.0	52.8	148.4	231.3	291.1	258.6	355.1	776.8	1,095.7	1,017.2
2.	± Gov't Stockpile Adj.	—	—	—	6.2	108.8	22.0	(63.5)	(60.2)	(22.0)	—	22.0
3.	+ Imports of Ingot	2,363.2	2,292.0	1,835.3	1,366.0	1,575.5	1,347.8	1,603.7	1,446.6	1,129.3	910.1	748.4
4.	+ Imports of Mill Products	75.7	84.9	52.5	33.1	32.6	39.0	33.6	27.6	30.0	44.9	32.1
5.	+ Recovery of Secondary	1,230.9	1,220.4	962.9	838.7	803.4	692.8	700.0	560.5	550.1	563.0	476.1
6.	- Exports of Ingot	2.9	3.4	1.9	2.0	2.2	2.3	1.7	6.7	12.2	7.6	8.0
7.	- Exports of Mill Products	136.6	134.5	212.7	224.6	243.9	227.4	197.0	154.9	113.9	73.0	98.4
8.	= Apparent Aluminum Consumption	3,581.0	3,508.4	2,688.9	2,165.8	2,305.5	2,163.0	2,333.7	2,168.0	2,338.1	2,533.1	2,189.4
9.	+ Beginning Inventory	580.1	515.3	479.2	775.3	872.8	964.2	1,037.	1,077.0	760.7	505.8	589.4
10.	- Ending Inventory	521.2	580.1	515.3	479.2	775.3	872.8	964.2	1,037.6	1,077.0	760.7	505.8
11.	= Inventory Change	(58.9)	64.8	36.1	(296.1)	(97.5)	(91.4)	(73.4)	(39.4)	316.3	254.9	(83.6)
12.	= Aluminum Consumption	3,639.9	3,443.6	2,652.8	2,461.9	2,603.0	2,254.4	2,407.1	2,207.4	2,021.8	2,278.2	2,273.0
13.	Mid-Year Population (Millions)	123.3	122.8	122.3	121.7	121.0	120.3	119.5	118.8	117.9	117.1	116.1
14.	= Per Capita Consumption (kg) (1)	29.1	28.6	22.0	17.8	20.7	18.0	19.5	18.2	19.8	21.6	18.9
15.	= Per Capita Consumption (kg) (2)	29.5	28.0	21.7	20.2	21.5	18.7	20.1	18.6	17.1	19.5	19.6

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Japan Aluminium Federation

Per Capita Aluminum Consumption—Continued

KOREA, REPUBLIC OF

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	na	na	na	na	17.1	17.1	12.6	14.8	17.2	17.6	17.6
3	+ Imports of Ingot	na	na	na	na	160.4	143.2	134.3	105.0	98.6	63.6	80.6
4.	+ Imports of Mill Products	na	na	na	na	30.9	34.6	31.7	24.0	17.0	20.0	22.6
5.	+ Recovery of Secondary	na	na	na	na	10.3	9.8	10.7	13.3	11.5	7.8	10.2
6.	- Exports of Ingot	na	na	na	na	0.7	0.2	0.2	—	—	1.5	0.6
7.	- Exports of Mill Products	na	na	na	na	33.5	21.3	20.9	24.0	25.7	35.0	9.0
8.	= Apparent Aluminum Consumption	na	na	na	na	184.5	183.2	168.2	133.1	118.6	72.5	121.4
13.	Mid-Year Population (Millions)	na	na	na	na	41.1	40.6	40.0	39.3	38.7	38.2	37.6
14.	= Per Capita Consumption (kg) (1)	na	na	na	na	4.5	4.5	4.2	3.4	3.1	1.9	3.2

NOTES: (1) Without Inventory Change
na — Not available

Source: Ministry of Commerce and Industry

MEXICO

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	71.7	68.3	60.2	37.0	42.7	44.0	39.7	41.2	43.2	42.6	43.2
3.	+ Imports of Ingot	16.5	21.7	19.9	35.2	78.7	45.2	17.5	32.3	58.8	63.5	56.1
4.	+ Imports of Mill Products	47.5	29.8	35.2	20.6	25.7	15.3	6.2	62.2	82.9	49.4	36.4
5.	+ Recovery of Secondary	13.2	4.5	8.8	16.4	22.3	19.6	15.1	25.8	20.3	17.1	14.9
6.	- Exports of Ingot	8.6	16.1	9.8	8.0	5.0	1.9	0.9	0.2	*	*	*
7.	- Exports of Mill Products	12.0	13.9	11.5	4.1	12.1	6.2	1.3	1.1	3.1	3.4	3.1
8.	= Apparent Aluminum Consumption	128.2	94.2	102.8	97.2	152.4	116.0	76.4	160.2	202.1	169.3	147.4
9.	+ Beginning Inventory	3.0	4.6	6.7	8.2	6.0	7.5	13.4	4.5	2.0	1.5	1.8
10	- Ending Inventory	5.8	3.0	4.6	6.7	8.2	6.0	7.5	13.4	4.5	2.0	1.5
11.	= Inventory Change	2.8	(1.6)	(2.1)	(1.5)	2.2	(1.5)	(5.9)	8.9	2.5	0.5	(0.3)
12.	= Aluminum Consumption	125.4	95.9	104.9	98.7	150.2	117.5	82.3	151.3	199.6	168.8	147.7
13.	Mid-Year Population (Millions)	84.0	83.0	81.0	78.0	75.0	73.0	72.0	70.0	68.0	67.0	67.0
14.	= Per Capita Consumption (kg) (1)	1.5	1.1	1.3	1.2	2.0	1.6	1.1	2.3	3.0	2.5	2.2
15.	= Per Capita Consumption (kg) (2)	1.5	1.2	1.3	1.3	2.0	1.6	1.1	2.2	2.9	2.5	2.2

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Instituto Mexicano del Aluminio, A.C.

NETHERLANDS

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	279.2	270.7	268.7	265.8	250.6	249.2	235.4	250.9	262.1	258.2	255.6
3.	+ Imports of Ingot	177.3	167.7	145.5	151.1	133.4	133.0	129.0	195.5	161.3	215.8	167.8
4.	+ Imports of Mill Products	169.6	171.8	149.7	134.5	126.0	120.5	272.6	107.9	92.4	113.3	106.5
5.	+ Recovery of Secondary	129.7	115.9	101.4	96.8	83.3	59.9	58.2	49.8	50.2	53.4	46.6
6.	- Exports of Ingot	345.4	329.8	314.4	301.3	296.8	279.0	277.3	350.8	352.0	365.3	359.4
7.	- Exports of Mill Products	151.9	139.2	134.1	131.1	99.5	107.3	262.8	89.7	86.5	98.7	88.3
8.	= Apparent Aluminum Consumption	258.5	257.1	216.8	215.8	197.0	176.3	155.1	163.5	127.6	176.7	128.8
9.	+ Beginning Inventory	10.3	10.7	8.2	9.9	6.8 r	11.5 r	9.6	8.7	10.3	7.7	43.7
10.	- Ending Inventory	9.5	10.3	10.7	8.2	9.9	6.8	11.5	9.6	8.7	10.3	7.7
11.	= Inventory Change	(0.8)	(0.4)	2.5	(1.7)	3.1 r	(4.7)r	1.9	0.9	(1.6)	2.6	(36.0)
12.	= Aluminum Consumption	259.3	257.5	214.3	217.5	193.9 r	181.0 r	153.2	162.7	129.2	174.1	164.8
13.	Mid-Year Population (Millions)	14.8	14.7	14.6	14.5	14.5	14.4	14.4	14.3	14.2	14.1	14.0
14.	= Per Capita Consumption (kg) (1)	17.5	17.5	14.8	14.9	13.6	12.2	10.8	11.4	9.0	12.5	9.2
15.	= Per Capita Consumption (kg) (2)	14.9	14.7	14.4	14.6	14.3 r	14.8 r	14.2	14.2	14.4	13.9	17.9

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised
Detail may not add to totals due to rounding.

Source: Vereniging Nederlands Aluminium Instituut

NEW ZEALAND

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	257.5	255.6	249.0	236.2	241.6	241.6	220.1	163.1	154.3	154.5	154.1
3.	+ Imports of Ingot	4.5	9.2	5.4	0.1	0.5	1.4	6.6	7.2	3.4	—	-
4.	+ Imports of Mill Products	10.8	7.2	6.0	5.0	3.7	3.6	2.9	3.1	2.6	2.4	3.4
5.	+ Recovery of Secondary	4.5	3.1	4.0	4.0	4.0	3.7	3.0	2.7	3.0	2.0	2.0
6.	- Exports of Ingot	232.1	232.2	219.0	209.1	224.6	212.8	210.4	40.2	124.8	126.2	118.6
7.	- Exports of Mill Products	9.1	7.8	4.6	5.4	9.5	6.2	5.4	7.7	5.7	5.4	2.7
8.	= Apparent Aluminum Consumption	36.1	35.1	40.8	30.8	15.7	31.3	16.8	28.2	32.8	27.3	38.2
9.	+ Beginning Inventory	15.4	14.3	12.6	15.2	32.5	31.8	41.6	35.6	31.9	28.6	39.7
10.	- Ending Inventory	14.5	15.4	14.3	12.6	15.2	32.5	31.8	41.6	35.6	31.9	28.6
11.	= Inventory Change	(0.9)	1.1	1.7	(2.6)	(17.3)	0.7	(9.8)	6.0	3.7	3.3	(11.1)
12.	= Aluminum Consumption	37.0	34.0	39.1	33.4	33.0	30.6	26.6	22.2	29.1	24.0	49.3
13.	Mid-Year Population (Millions)	3.4	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.1	3.1	3.2
14.	= Per Capita Consumption (kg) (1)	10.8	10.6	12.4	9.4	4.8	9.7	5.3	8.9	10.5	8.8	12.1
15.	= Per Capita Consumption (kg) (2)	11.0	10.2	11.9	10.2	10.1	9.5	8.3	7.0	9.3	7.7	15.7

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Comalco Limited and New England Department of Statistics

NORWAY

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	na	826.6	797.8	729.1	724.1	760.8	715.4	645.1	636.1	662.0	673.5
3.	+ Imports of Ingot	na	90.7	57.1	35.1	34.7	31.6	11.2	21.0	14.8	16.4	8.9
4.	+ Imports of Mill Products	na	30.6	33.1	51.9	46.0	51.8	42.4	37.2	38.5	42.5	29.9
5.	+ Recovery of Secondary	na	7.2	—	—	—	2.3	0.7	2.8	2.8	3.5	3.6
6.	- Exports of Ingot	na	755.0	754.2	646.5	643.8	638.7	637.4	545.4	524.0	521.2	565.3
7.	- Exports of Mill Products	na	113.1	102.7	89.3	91.7	91.8	105.1	76.8	74.9	71.6	72.7
8.	= Apparent Aluminum Consumption	na	87.0	31.1	80.3	69.3	116.0	27.2	83.9	93.3	131.6	77.9
11.	+ Inventory Change	—	(28.5)	4.7	(14.3)	26.8	(27.4)	(28.4)	15.8	38.7	(18.5)	
12.	= Aluminum Consumption	na	87.0	59.6	75.6	83.6	89.2	54.6	112.3	77.5	92.9	96.4
13.	Mid-Year Population (Millions)	na	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.0
14.	= Per Capita Consumption (kg) (1)	na	21.2	7.6	19.6	16.9	28.3	6.6	20.5	22.8	32.1	19.5
15.	= Per Capita Consumption (kg) (2)	na	21.2	14.5	18.4	20.4	21.8	13.3	27.4	18.9	22.7	24.1

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
na — Not available

Source: Skan Aluminium

PANAMA

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
3.	+ Imports of Ingot	0.5	0.6	1.8	1.6	1.4	1.2	1.2	1.2	1.6	1.6	1.4
4.	+ Imports of Mill Products	3.0	2.4	2.2	0.4	0.4	3.6	1.6	0.1	0.2	0.1	0.3
5.	+ Recovery of Secondary	2.4	1.2	1.3	0.7	0.7	0.6	0.6	0.6	0.5	0.4	0.4
6.	- Exports of Ingot	0.5	0.6	0.9	0.5	0.4	0.3	0.2	—	—	—	-
7.	- Exports of Mill Products	0.5	0.5	0.6	0.5	0.5	0.4	0.2	0.3	0.2	0.3	0.3
8.	= Apparent Aluminum Consumption	4.9	3.1	3.9	1.8	1.7 r	4.7	3.0	1.6	2.1	1.8	1.8
13.	Mid-Year Population (Millions)	2.35	2.30	2.30	2.27	2.20	2.14	2.10	2.00	1.98	1.95	1.90
14.	= Per Capita Consumption (kg) (1)	2.1	1.3	1.7	0.8	0.7 r	2.2	1.4	0.8	1.1	0.9	0.9

NOTES: (1) Without Inventory Change

Source: Aluminio de Panama, S.A.

Per Capita Aluminum Consumption—Continued

PHILIPPINES, REPUBLIC OF

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
3.	+ Imports of Ingot	na	na	5.3	4.4	2.5	2.7	8.5	9.5	10.4	17.6	28.4
4.	+ Imports of Mill Products	na	na	7.9	3.6	4.7	6.7	9.4	16.9	4.4	5.5	7.9
6.	- Exports of Ingot	na	na	—	—	—	—	—	—	*	*	-
7.	- Exports of Mill Products	na	na	*	*	*	0.3	2.9	4.3	4.7	5.6	2.9
8.	= Apparent Aluminum Consumption	na	na	13.2	8.0	7.2	9.1	15.0	22.1	10.1	17.5	33.4
13.	Mid-Year Population (Millions)	na	na	57.4	56.0	54.7	53.4	52.1	50.8	49.5	48.3	47.1
14.	= Per Capita Consumption (kg) (1)	na	na	0.2	0.1	0.1	0.2	0.3	0.4	0.2	0.4	0.7

NOTES: (1) Without Inventory Change
* — Less than 50 metric tons
na — Not available

Source: National Census and Statistics Office

PORTUGAL

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
3.	+ Imports of Ingot	47.1	45.0 r	43.0 r	39.0	35.9	26.1	43.0	46.2	40.1	27.5	21.8
4.	+ Imports of Mill Products	na	na	na	16.3	13.4	13.2	15.3	17.9	18.2	16.6	14.9
5.	+ Recovery of Secondary	2.7	0.7 r	2.3 r	3.2	2.2	2.4	2.4	1.9	2.0	2.7	3.8
6.	- Exports of Ingot	na	na	na	—	2.0	0.8	0.3	0.3	0.3	0.3	0.9
7.	- Exports of Mill Products	na	na	na	12.4	11.2	9.3	14.9	16.1	10.6	8.6	6.0
8.	= Apparent Aluminum Consumption	49.8	45.7 r	45.3 r	46.1	38.3	31.6	45.5	49.6	49.4	37.9	33.6
13.	Mid-Year Population (Millions)	10.2	10.2 r	10.2 r	10.2	10.2	10.1	10.0	9.9	9.9	9.8	9.8
14.	= Per Capita Consumption (kg) (1)	4.9	4.5 r	4.4 r	4.5	3.8	3.1	4.6	5.0	5.0	3.9	3.4

NOTES: (1) Without Inventory Change
r — revised
na — Not available

Source: National Statistical Institute

EL SALVADOR

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
3.	+ Imports of Ingot	1.4	1.8	1.3	1.7	0.5	1.2	1.1	0.9	1.3	1.6	2.4
4.	+ Imports of Mill Products	1.0	0.7	0.7	—	—	0.3	1.9	—	0.8	0.4	1.2
5.	+ Recovery of Secondary	0.1	0.1	0.6	0.1	0.5	0.5	0.5	0.6	0.6	0.7	0.9
7.	- Exports of Mill Products	0.8	1.0	1.0	0.9	0.8	1.1	1.0	0.4	1.3	1.9	2.4
8.	= Apparent Aluminum Consumption	1.7	1.5	1.6	0.9	0.2	0.9	2.5	1.2	1.5	0.8	2.1
13.	Mid-Year Population (Millions)	5.14	5.03	4.93	4.97	4.85	4.78	4.83	4.74	4.60	4.50	4.40
14.	= Per Capita Consumption (kg) (1)	0.3	0.3	0.3	0.2	0.0	0.2	0.5	0.3	0.3	0.2	0.5

NOTES: (1) Without Inventory Change

Source: Aluminio de Centro America, S.A.

KINGDOM OF SAUDI ARABIA

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	na	—	—	—	—	—	—	*	*	—	-
3.	+ Imports of Ingot	na	47.0	36.6	9.1	9.5	8.7	14.6	5.2	80.3	73.4	53.3
4.	+ Imports of Mill Products	na	40.0	30.8	38.2	99.8	61.6	148.9	28.8	12.2	14.0	12.3
6.	- Exports of Ingot	na	—	—	—	—	—	—	—	3.8	1.7	0.5
7.	- Exports of Mill Products	na	—	—	—	—	—	—	0.5	*	0.2	0.5
8.	= Apparent Aluminum Consumption	na	103.0	87.4	47.3	109.2	70.3	163.5	33.4	88.6	85.5	64.6
13.	Mid-Year Population (Millions)	na	12.0	12.0	8.0	8.0	7.8	7.8	7.8	7.8	7.6	7.5
14.	= Per Capita Consumption (kg) (1)	na	8.5	7.3	5.9	13.7	9.0	21.0	4.3	11.4	11.2	8.6

NOTES: (1) Without Inventory Change
* — Less than 50 metric tons
na — Not available

Source: Saudi Basic Industries Corp

Detail may not add to totals due to rounding.

SINGAPORE, REPUBLIC OF

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
3.	+ Imports of Ingot	39.0	126.0	41.0	16.0	14.0	11.0	18.0	11.0	8.0	9.0	6.0
4.	+ Imports of Mill Products	44.0	46.0	40.0	29.0	32.0	33.0	35.0	28.0	27.0	21.0	23.0
6.	- Exports of Ingot	66.0	107.0	13.0	6.0	8.0	7.0	13.0	6.0	3.0	4.0	3.0
7.	- Exports of Mill Products	12.0	10.0	9.0	9.0	8.0	7.0	14.0	7.0	4.0	4.0	4.0
8.	= Apparent Aluminum Consumption	5.0	55.0	59.0	30.0	30.0	30.0	26.0	26.0	28.0	22.0	22.0
13.	Mid-Year Population (Millions)	2.69	2.65	2.61	2.59	2.56	2.53	2.50	2.50	2.40	2.40	2.40
14.	= Per Capita Consumption (kg) (1)	1.9	20.8	22.6	11.6	11.7	11.9	10.4	10.4	11.7	9.2	9.2

NOTES: (1) Without Inventory Change

Source: Department of Statistics, Singapore

SOUTH AFRICA, REPUBLIC OF

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	168.2	172.2	170.6	169.6	164.6	167.4	161.3	105.8	83.7	86.0	85.1
3.	+ Imports of Ingot	—	0.4	0.4	0.4	0.4	0.2	0.4	0.7	1.8	0.3	0.6
4.	+ Imports of Mill Products	17.0	17.0	17.0	17.0	16.5	11.8	14.8	10.8	12.0	11.1	7.1
5.	+ Recovery of Secondary	27.0	27.0	27.0	27.0	25.0	28.2	31.7	27.2	28.3	27.2	16.5
6.	- Exports of Ingot	53.1	68.3	93.8	92.4	90.5	82.7	110.5	24.6	2.9	12.9	33.1
7.	- Exports of Mill Products	3.0	3.0	3.0	3.0	2.5	2.2	0.7	0.9	1.1	3.3	1.7
8.	= Apparent Aluminum Consumption	156.1	145.3	118.2 r	118.6	113.5	122.7	97.0	119.0	121.8	108.4	74.5
11.	+ Inventory Change	—	—	—	2.2	(2.5)	8.0	(11.6)	12.3	3.7	0.4	0.8
12.	= Aluminum Consumption	156.1	145.3	118.2 r	116.4	116.0	114.7	108.6	106.7	118.1	108.0	73.7
13.	Mid-Year Population (Millions)	28.0	28.0	28.0	28.0	27.4	26.8	26.1	26.2	25.6	24.1	28.2
14.	= Per Capita Consumption (kg) (1)	5.6	5.2	4.2 r	4.2	4.1	4.6	3.7	4.5	4.8	4.5	2.6
15.	= Per Capita Consumption (kg) (2)	5.6	5.2	4.2 r	4.2	4.2	4.3	4.2	4.1	4.6	4.5	2.6

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
(3) 1980-1983 Population excludes independent homelands — Transkei, Bophutatswanda and Venda
1984-pres. Population excludes independent homelands — Transkei, Bophutatswanda, Venda and Ciskei
r — revised
a — Source: World Bureau of Metal Statistics

Source: Aluminium Federation of South Africa

SPAIN

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	352.0	294.0	341.0	354.7	370.1	380.8	355.5	365.1	396.6	386.5	259.9
3.	+ Imports of Ingot	11.0	45.0	9.0	19.2	9.7	10.6	12.3	18.3	13.6	3.2	7.2
4.	+ Imports of Mill Products	56.0	59.0	47.2	40.0	20.6	26.0	41.6	31.0	21.3	24.0	20.3
6.	- Exports of Ingot	95.0	75.0	99.3	142.2	202.7	232.2	165.9	145.2	162.7	106.8	42.9
7.	- Exports of Mill Products	52.0	56.0	47.0	43.3	41.8	40.5	35.3	36.9	39.0	45.4	48.2
8.	= Apparent Aluminum Consumption	272.0	267.0	250.9	228.4	155.9	144.7	208.2	232.3	229.8	261.5	196.3
11.	+ Inventory Change	(5.0)	(4.0)	(9.0)	8.3	(18.0)	(25.0)	4.0	23.5	33.5	21.0	(18.6)
12.	= Aluminum Consumption	277.0	271.0	259.9	220.1	173.9	169.7	204.2	208.8	196.3	240.5	214.9
13.	Mid-Year Population (Millions)	39.5	39.0	38.9	38.7	38.5	38.4	38.2	37.9	37.7	37.4	37.1
14.	= Per Capita Consumption (kg) (1)	6.9	6.8	6.4	5.9	4.0	3.8	5.5	6.1	6.1	7.0	5.3
15.	= Per Capita Consumption (kg) (2)	7.0	6.9	6.7	5.7	4.5	4.4	5.3	5.5	5.2	6.4	5.8

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Aluminio de Galicia, S.A.

Per Capita Aluminum Consumption—Continued

SWEDEN

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	97.0	99.2	81.5	77.1	83.7	82.9	82.2	78.9	82.8	81.6	82.0
3.	+ Imports of Ingot	56.1	58.8	43.1	54.3	46.3	48.5	49.7	45.5	38.7	36.9	36.7
4.	+ Imports of Mill Products	102.7	99.3	91.0	87.5	82.0	87.4	86.3	74.0	63.0	64.4	65.4
5.	+ Recovery of Secondary	53.3	50.7 r	48.8	41.9	39.4	37.0	29.0	27.2	26.7	24.5	24.0
6.	- Exports of Ingot	58.8	59.9	43.6	39.4	41.8	38.2	39.2	35.2	37.8	17.7	19.6
7.	- Exports of Mill Products	54.9	55.1	46.1	50.7	42.9	40.4	50.6	46.3	43.0	47.1	57.8
8.	= Apparent Aluminum Consumption	195.4	193.0 r	174.7	170.7	166.7	177.2	157.5	144.1	130.4	142.6	130.7
11.	+ Inventory Change	3.8	0.3	(5.2)	(1.1)	(5.3)	5.8	(2.0)	(6.7)	(0.7)	12.9	(8.1)
12.	= Aluminum Consumption	191.6	192.7 r	179.9	171.8	172.0	171.4	159.5	150.8	131.1	129.7	138.8
13.	Mid-Year Population (Millions)	8.5	8.4	8.4	8.4	8.4	8.3	8.3	8.3	8.3	8.3	8.3
14.	= Per Capita Consumption (kg) (1)	23.0	22.7	20.8	20.4	20.0	21.4	8.9	17.3	15.7	17.1	15.7
15.	= Per Capita Consumption (kg) (2)	22.5	22.7	21.4	20.5	20.6	20.7	19.1	18.1	15.8	15.6	16.7

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change and Granges Aluminium
r — revised

Source: National Central Bureau of Statistics

SWITZERLAND

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	71.3	71.8	73.4	80.6	72.6	79.2	76.0	75.3	82.5	86.3	83.0
3.	+ Imports of Ingot	117.6	94.8	87.0	86.7	77.2	62.8	57.2	47.4	36.1	52.8	39.6
4.	+ Imports of Mill Products	78.8	74.1	64.5	65.2	62.2	56.1	52.7	47.1	47.9	51.6	42.6
5.	+ Recovery of Secondary	31.7	28.2	25.5	25.5	26.1	23.0	21.1	18.7	20.6	19.4	19.2
6.	- Exports of Ingot	32.5	32.2	26.6	23.4	19.9	25.7	26.7	25.4	22.7	22.8	26.4
7.	- Exports of Mill Products	101.1	116.0	99.6	99.3	95.1	84.3	80.4	70.5	66.0	72.0	76.6
8.	= Apparent Aluminum Consumption	165.9	120.7	124.2	135.3	123.1	111.1	99.9	92.6	98.3	115.3	81.6
11.	+ Inventory Change	—	(4.4)	0.2	2.7	0.1	(7.3)	3.1	(4.2)	(0.7)	5.9	(6.7)
12.	= Aluminum Consumption	165.9	125.1	124.0	132.6	123.0	118.4	96.8	96.8	99.1	109.4	88.3
13.	Mid-Year Population (Millions)	6.6	6.6	6.6	6.5	6.5	6.5	6.5	6.5	6.4	6.4	6.2
14.	= Per Capita Consumption (kg) (1)	25.1	18.3	18.8	20.8	18.9	17.1	15.4	14.2	15.4	18.0	13.2
15.	= Per Capita Consumption (kg) (2)	25.1	19.0	18.8	20.4	18.9	18.2	14.9	14.9	15.5	17.1	14.2

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Vereinigung Schweizerischer Aluminium — Halbzeugwerke

TAIWAN, REPUBLIC OF CHINA

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	na	na	na	na	—	—	—	10.0	30.0	62.5	56.2
3.	+ Imports of Ingot	na	na	na	na	147.2	99.9	139.1	88.6	47.7	58.3	52.9
4.	+ Imports of Mill Products	na	na	na	na	32.4	22.8	23.2	15.0	9.7	9.6	11.3
5.	+ Recovery of Secondary	na	na	na	na	3.6	5.3	24.2	15.5	16.8	19.2	13.8
6.	- Exports of Ingot	na	na	na	na	5.8	3.1	2.6	0.6	—	*	*
7.	- Exports of Mill Products	na	na	na	na	29.6	17.3	18.4	14.0	19.2	17.2	15.1
8.	= Apparent Aluminum Consumption	na	na	na	na	147.8	107.6	165.5	114.5	85.0	132.5	119.1
11.	+ Inventory Change	na	na	na	na	—	—	—	0.9	(33.6)	23.9	0.1
12.	= Aluminum Consumption	na	na	na	na	147.8	107.6	165.5	113.6	118.6	108.6	119.0
13.	Mid-Year Population (Millions)	na	na	na	na	19.0	18.8	18.6	18.3	18.0	17.8	17.5
14.	= Per Capita Consumption (kg) (1)	na	na	na	na	7.8	5.7	8.9	6.3	4.7	7.4	6.8
15.	= Per Capita Consumption (kg) (2)	na	na	na	na	7.8	5.7	8.9	6.2	6.6	6.1	6.8

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Taiwan Aluminium Corporation

Detail may not add to totals due to rounding.

TURKEY, REPUBLIC OF

Thousands of Metric Tons

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	57.2	56.7 r	41.7 r	60.0 r	54.1 r	38.0 r	57.4	84.2	131.4	35.0	34.1
3.	+ Imports of Ingot	na	34.4 r	94.0	38.0	60.0	68.5	60.0	35.1	60.1	6.4	13.0
4.	+ Imports of Mill Products	na	30.5 r	15.0	6.0	6.0	3.1	5.7	8.6	10.8	21.6	7.0
6.	- Exports of Ingot	na	0.4 r	—	—	—	0.2	1.3	1.0	—	—	-
7.	- Exports of Mill Products	na	19.6 r	30.0	24.0	29.0	27.1	21.4	14.3	22.1	16.0	6.0
8.	= Apparent Aluminum Consumption	na	101.6 r	120.7 r	80.0 r	91.1 r	82.3 r	100.4	112.6	180.2	47.0	48.1
13.	Mid-Year Population (Millions)	na	54.2 r	49.3	49.3	49.3	48.3	47.3	46.3	45.3	44.4	43.5
14.	= Per Capita Consumption (kg) (1)	na	1.9 r	2.4 r	1.6 r	1.8 r	1.7 r	2.1	2.4	4.0	1.1	1.1

NOTES: (1) Without Inventory Change
r — revised

Source: State Institute of Statistics

UNITED KINGDOM

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	297.3	300.2	294.4	275.9	275.4	287.9	252.5	240.8	339.2	374.5	359.4
3.	+ Imports of Ingot	256.0	243.4	175.1	180.6	145.8	170.2	162.4	154.8	123.3	169.4	182.1
4.	+ Imports of Mill Products	317.2	298.0	285.5	240.6	227.5	234.2	224.2	200.6	157.4	145.0	179.4
5.	+ Recovery of Secondary	103.9	99.6	110.8	110.1	121.9	137.1	122.6	108.4	140.7	150.0	159.9
6.	- Exports of Ingot	160.7	147.9	125.9	110.3	121.1	118.2	126.5	117.5	168.5	188.9	200.0
7.	- Exports of Mill Products	158.7	140.2	127.9	121.4	104.5	104.7	90.9	93.0	77.6	101.6	71.2
8.	= Apparent Aluminum Consumption	655.0	653.1	612.0	575.5	545.0	606.5	544.3	494.1	514.5	548.4	609.6
9.	+ Beginning Inventory	88.7	86.8	95.1	105.2	119.4	118.7	106.4	85.1	97.4	96.1	46.2
10.	- Ending Inventory	86.4	88.7	86.8	95.1	105.2	119.4	118.7	106.4	85.1	97.4	96.1
11.	= Inventory Change	(2.3)	1.9	(8.3)	(10.1)	(14.2)	0.7	12.3	21.3	(12.3)	1.4	49.9
12.	= Aluminum Consumption	657.3	651.2	620.3	585.6	559.2	605.8	532.0	472.8	526.8	547.0	559.7
13.	Mid-Year Population (Millions)	57.3	57.1	56.8	56.7	56.6	56.4	56.0	56.0	68.0	67.0	55.8
14.	= Per Capita Consumption (kg) (1)	11.4	11.4	10.8	10.1	9.6	10.8	9.7	8.8	7.6	8.2	10.9
15.	= Per Capita Consumption (kg) (2)	11.5	11.4	10.9	10.3	9.9	10.7	9.5	8.4	7.7	8.2	10.0

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Aluminium Federation, Ltd. and British Alcan Ltd.

UNITED STATES OF AMERICA

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	4,030.2	3,944.5	3,346.9	3,038.7	3,499.7	4,099.1	3,353.3	3,273.7	4,488.7	4,653.6	4,556.9
3.	+ Imports of Ingot	925.6	1,027.3	1,245.5	1,348.8	868.7	882.0	742.7	616.3	644.7	526.8	517.8
4.	+ Imports of Mill Products	427.4	440.0	455.9	493.9	463.0	494.3	280.5	206.7	137.9	76.2	193.4
5.	+ Recovery of Secondary	2,044.0	2,122.0	1,986.0	1,773.0	1,762.0	1,760.0	1,773.0	1,665.6	1,789.9	1,576.7	1,612.1
6.	- Exports of Ingot	594.5	400.1	281.2	209.6	347.3	259.6	360.7	363.9	312.3	648.6	182.1
7.	- Exports of Mill Products	497.0	386.3	287.0	203.5	199.3	218.6	202.1	223.4	309.2	346.3	282.0
8.	= Apparent Aluminum Consumption	6,335.7	6,747.4	6,466.1	6,241.3	6,046.8	6,757.2	5,586.7	5,175.0	6,439.7	5,838.4	6,416.1
9.	+ Beginning Inventory	1,882.8	1,893.8	2,235.3	2,342.8	2,653.5	2,265.4	2,812.0	2,996.7	2,302.5	2,324.8	2,492.1
10.	- Ending Inventory	1,821.6	1,882.8	1,893.8	2,235.3	2,342.8	2,653.5	2,265.4	2,812.0	2,996.7	2,302.5	2,324.8
11.	= Inventory Change	(61.2)	(11.0)	(341.6)	(107.5)	(310.7)	388.1	(546.6)	(184.7)	694.2	(22.3)	(167.3)
12.	= Aluminum Consumption	6,396.9	6,758.4	6,807.7	6,348.8	6,357.5	6,369.1	6,133.3	5,359.7	5,745.5	5,860.7	6,583.4
13.	Mid-Year Population (Millions)	248.2	245.8	243.7	241.0	238.7	236.5	234.0	231.5	229.3	227.7	220.6
14.	= Per Capita Consumption (kg) (1)	25.5	27.5	26.5	25.9	25.3	26.6	23.9	22.4	28.1	25.6	29.1
15.	= Per Capita Consumption (kg) (2)	25.8	27.5	27.9	26.3	26.6	26.9	26.2	23.2	25.1	25.7	29.8

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: The Aluminum Association, Inc.

Per Capita Aluminum Consumption—Continued

VENEZUELA

		1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
1.	+ Primary Aluminum Production	546.0	443.4	439.6	421.0	404.0	387.0	338.0	273.6	315.5	321.3	210.3
3.	+ Imports of Ingot	na	na	na	6.0	3.0	0.4	0.3	0.9	0.4	0.2	9.1
4.	+ Imports of Mill Products	na	na	na	17.0	19.0	21.0	13.0	25.7	23.8	24.8	15.3
5.	+ Recovery of Secondary	na	na	na	24.0	21.0	14.0	20.0	10.0	10.0	10.0	10.2
6.	- Exports of Ingot	na	na	na	247.0	297.0	179.0	292.0	208.5	239.0	217.3	123.4
7.	- Exports of Mill Products	na	na	na	103.0	106.0	68.0	22.0	0.2	24.4	37.1	23.0
8.	= Apparent Aluminum Consumption	na	na	na	118.0	44.0	175.4	57.3	101.5	86.3	101.9	98.5
9.	+ Beginning Inventory	na	na	na	60.0	99.0	22.0	55.9	48.8	25.4	20.2	0.0
10.	- Ending Inventory	na	na	na	61.0	60.0	99.0	22.0	55.9	48.8	25.4	20.2
11.	= Inventory Change	na	na	na	1.0	(39.0)	77.0	(33.9)	7.1	23.4	5.2	20.2
12.	= Aluminum Consumption	na	na	na	117.0 r	83.0 r	98.4 r	91.2	94.4	62.9	96.7	78.3
13.	Mid-Year Population (Millions)	na	na	na	17.8	17.3	16.9	16.5	14.9	14.6	13.9	13.5
14.	= Per Capita Consumption (kg) 1	na	na	na	6.6	2.5	10.4	3.5	6.8	5.9	7.3	7.3
15.	= Per Capita Consumption (kg) 2	na	na	na	6.6 r	4.8 r	5.8 r	5.5	6.3	4.3	7.0	5.8

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised
na — Not available

Source: Aluminio del Caroni, S.A.

Detail may not add to totals due to rounding.

ACSR AND ALUMINUM CABLE, BARE —Aluminum stranded conductor reinforced by a core of steel (ACSR), or aluminum (ACAR); or any other bare stranded aluminum conductor.

ATOMIZED POWDER —Powder produced by blowing or asperating molten metal through an orifice.

CASTING —A product made by pouring molton metal into a mold of a desired shape and letting it harden.

CONDUCTOR REDRAW ROD (CONTINUOUS-CAST OR ROLLED) —A solid round product that is long in relation to cross section, 0.375" or greater in diameter, produced by continuous casting followed by size-rolling, or by rolling from D.C. cast ingot, suitable for drawing into electrical conductor wire.

DIRECT MILL USES —Finished product applications supplied for the most part directly from mills rather than from distributors or jobber warehouses.

DRAWING STOCK (Redraw Rod) —See Conductor or Non Conductor Redraw Rod.

DRAWN TUBE —A hollow product that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape, and brought to final dimensions by drawing.

DROSS AND SKIMMINGS —The mixture of oxides and other impurities which float to the surface of molten aluminum and is skimmed off.

EXTRUDED PIPE AND TUBE —A hollow product formed by extruding that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape.

EXTRUDED ROD AND BAR —A solid product produced by extruding (sometimes brought to final dimensions by drawing) that is long in relation to cross section, which is round, square, rectangular, hexagonal, or octagonal in shape and 0.375" or greater in diameter or in at least one perpendicular distance between parallel faces.

EXTRUSION INGOT (BILLET) —A solid or hollow cast form, usually cylindrical, suitable for extruding.

FLAKED POWDER —Powder consisting of flat or scale-like particles of a thickness small compared with other dimensions, produced by milling in the presence of a lubricant.

EXTRUDED SHAPES —A product produced by extruding, that is long in relation to its cross-sectional dimensions and has a cross section other than that of rod and bar and pipe and tube.

FOIL —A flat rolled product, rectangular in cross section, of thickness less than 0.006".

FORGINGS (EXCLUDING IMPACT EXTRUSIONS) —A product worked to a predetermined shape by one or more processes such as hammering, upsetting, pressing, rolling, etc.

GENERAL LINE DISTRIBUTOR —Warehouses and sells a number of mill products to a wide variety of customers.

IMPACTS (EXCLUDING COLLAPSIBLE TUBES AND CANS) —A product formed in a confining die from metal slug, usually cold, by rapid single stroke application of force through a punch, causing the metal to flow around the punch and/or through an opening in the punch or die.

INTEGRATED PRODUCER (OR SUPPLIER) —For statistical reporting, a company which produces primary aluminum ingot in the United States and produces mill products from it.

METALLURGICAL/DESTRUCTIVE USES —Applications wherein, because of the way it is used, aluminum either loses its identity or is lost and cannot be recovered. Major uses include the deoxidizing or steel and reduction of ferroalloys; steel and other nonferrous metal alloys; steel coating; and such other applications as chemicals and catalysts.

MILL PRODUCTS —Metal that has been fashioned into an intermediate or semifabricated form in preparation for making a finished product. Example: sheet, a mill product, is used to make residential siding, a finished product.

NET SHIPMENTS —Excludes intra-industry shipments for further fabrication. It is the most accurate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are subtracted.

NONCONDUCTOR REDRAW ROD (CONTINUOUS-CAST OR ROLLED) —A solid round product that is long in relation to cross section, 0.376" or greater in diameter, produced by continuous casting followed by size-rolling, or by rolling from D.C. cast ingot, suitable for drawing into nonconductor wire.

NONINTEGRATED FABRICATOR (OR SUPPLIER) —For statistical reporting, a U.S. mill product fabricator which is not affiliated with a domestic primary ingot producer.

OTHER INGOT AND MOLTEN METAL, PRIMARY —For statistical purposes, a cast form other than extrusion ingot (or molten metal), shipped by an integrated producer or nonintegrated fabricator from a company-owned facility not exclusively devoted to producing secondary ingot.

OTHER INGOT AND MOLTEN METAL, SECONDARY —For statistical purposes, a cast form other than extrusion ingot (or molten metal), principally produced from aluminum scrap to specification by secondary smelters (or others at a facility exclusively devoted to producing ingot from scrap for sale); excludes remelt scrap ingot (RSI) which is considered scrap until remelted and cast into specification ingot.

OTHER ROD AND BAR (CONTINUOUS-CAST OR ROLLED) —A solid, round, square, rectangular, hexagonal, or octagonal in shape produced bycontinuous casting or rolling, that is long in relation to cross section, 0.375" or greater in diameter or in at least one perpendicular distance between parallel faces; other than redraw rod and D.C. cast ingot.

PASTE —A blend of powder or flake with a thinner or plasticizer.

PLATE, NONHEAT-TREATABLE —A flat rolled product, rectangular in cross section, 0.250" or greater in thickness, which can be strengthened only by cold work.

PLATE, HEAT-TREATABLE —A flat rolled product, in 2000, 6000, or 7000 alloy series (except 7072), rectangular in cross section, 0.250" or greater in thickness, which can be strengthened by a suitable thermal treatment.

POWDER —An aggregate of discrete particles of aluminum, substantially all of which are finer than 1,000 microns (minus 18 mesh).

RECEIPTS —The metal physically received by a company for further processing.

REIMPORTS —Mill products that have been exported, partially processed outside the United States, and imported back to the United States while still in a mill product stage.

ROLLED STRUCTURAL SHAPES —A structural shape produced by hot rolling.

SCRAP —Includes "New" (prompt industrial) scrap, purchased, imported, or treated on toll, in all forms; and "Old" (post consumer or obsolete) scrap, including sweated pig; also remelt scrap ingot (RSI) which is considered scrap until remelted and cast into specification ingot.

SECONDARY SMELTER —A company whose facilities are exclusively devoted to producing ingot or molten aluminum from scrap.

SEMIFABRICATED PRODUCTS —See Mill Products.

SHEET, NONHEAT-TREATABLE —A rolled product, flat or coiled, rectangular in cross section, of 0.006" thickness but under 0.250" thickness, which can be strengthened only by cold work.

SHEET, HEAT-TREATABLE —A rolled product, in 2000, 6000, or 7000 alloy series (except 7072), flat or coiled, rectangular in cross section, of 0.006" thickness but under 0.250" thickness, which can be strengthened by a suitable thermal treatment.

STATISTICAL ADJUSTMENT —An adjustment made to product shipment data to account for net shipments of aluminum reported by the Bureau of the Census which are believed to be either over- or understated in the amounts indicated due to excessive or insufficient reporting. It also includes otherwise unpublished Census revisions. The addition of the statistical adjustment reconciles the amounts reported by the Bureau of the Census with the net shipments that the Aluminum Association feels are more correct.

WELDED TUBE —A hollow product that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape, produced by forming and seam-welding sheet longitudinally.

WIRE, BARE, CONDUCTOR AND NONCONDUCTOR —A solid wrought product that is long in relation to its cross section, which is square, round, rectangular, hexagonal, or octagonal in shape, whose diameter or greatest perpendicular distance between parallelfaces (except for flattened wire) is less than 0.375".

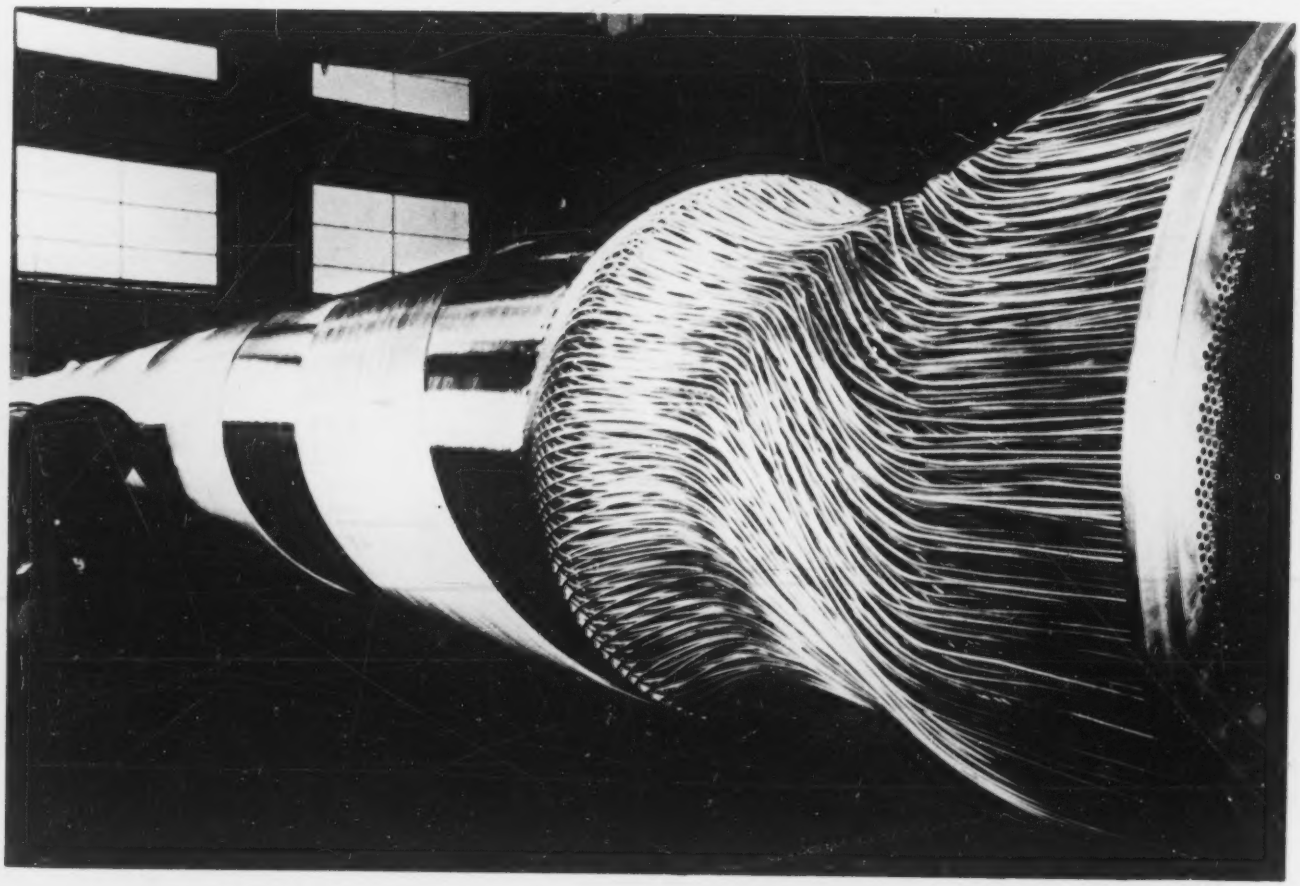
WIRE AND CABLE, INSULATED OR COVERED —Aluminum electrical conductor wire or stranded conductors that are insulated or covered.

Publications

The following publications are available from the Aluminum Association, Inc.

Aluminum Situation (monthly)
U.S. Exports and Imports of Aluminum (monthly and quarterly)
Aluminum Extrusion Press Directory
Aluminum Statistical Review Historical Supplement
U.S. Aluminum Industry Plant Directory
Publications Guide of the Aluminum Association
Film Guide of the Aluminum Association
About the Aluminum Association (a brochure)

Write to the Publications Department, the Aluminum Association, Inc., 900 19th Street, N.W., Washington, D.C. 20006.



Aluminum tubing used for a heat exchanger in a desolination plant.